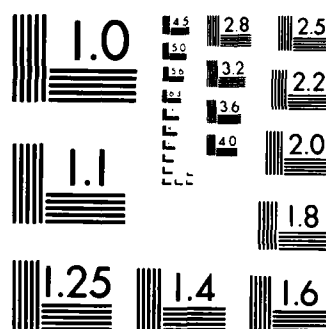


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NATIONAL BUREAU OF STANDARDS 1963-A

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US Army Corps
of Engineers
Water Resources
Support Center

Summary Report 84-SR-4

JULY 1984

AD-A149 438

UNITED STATES OF AMERICA

Ocean Dumping Report for Calendar Year 1983

DREDGED MATERIAL

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The following Summary Report contains 90 International Maritime Organization (IMO) reports. These reports were prepared by numerous Corps of Engineers employees in 20 Corps districts and divisions which have coastal boundaries. There are 40 reports which represent the CY 1983 <u>permitted</u> dredged material ocean disposal activities conducted under authority of Section 103 of the Marine Protection Research and Sanctuaries Act of 1972. The remaining 50 reports represent the CY 1983 <u>Corps of Engineers</u> dredged material disposal activities as authorized by the United States Congress. <		

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PAGE 38

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UNCLASSIFIED TITLE

OCEAN DUMPING REPORT FOR CALENDAR YEAR 1983. DREDGED MATERIAL.
ABSTRACT

(U) THE FOLLOWING SUMMARY REPORT CONTAINS 90 INTERNATIONAL MARITIME ORGANIZATION (IMO) REPORTS. THESE REPORTS WERE PREPARED BY NUMEROUS CORPS OF ENGINEERS EMPLOYEES IN 20 CORPS DISTRICTS AND DIVISIONS WHICH HAVE COASTAL BOUNDARIES. THERE ARE 40 REPORTS WHICH REPRESENT THE CY 1983 PERMITTED DREDGED MATERIAL OCEAN DISPOSAL ACTIVITIES CONDUCTED UNDER AUTHORITY OF SECTION 103 OF THE MARINE PROTECTION RESEARCH AND SANCTUARIES ACT OF 1972. THE REMAINING 50 REPORTS REPRESENT THE CY 1983 CORPS OF ENGINEERS DREDGED MATERIAL DISPOSAL ACTIVITIES AS AUTHORIZED BY THE UNITED STATES CONGRESS.

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UNITED STATES CONGRESS
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UNITED STATES

PHRASES NOT FOUND DURING LEXICAL DICTIONARY MATCH PROCESS

ACT OF 1972
1983 CORPS
40 REPORTS
90 INTERNATIONAL MARITIME ORGANIZATION

SECTION 103
20 CORPS DISTRICTS
50 REPORTS

UNCLASSIFIED

UNITED STATES OF AMERICA

OCEAN DUMPING

REPORT FOR

CALENDAR YEAR

1983

DREDGED MATERIAL



Prepared by the U. S. Army Corps of Engineers

Water Resources Support Center

Casey Building

Ft. Belvoir, VA 22060-5586

Ar

July 1984

Summary Report 84-SR-4

Copies may be purchased from:

National Technical Information Service
U. S. Department of Commerce
Springfield, Virginia 22151

This report is not to be construed as necessarily representing the views of the Federal Government nor of the U. S. Army Corps of Engineers.

Background

Under the authority of the International Maritime Organization (IMO), the United States and all other contracting nations to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter are required to submit an annual report for each ocean disposal operation. The U. S. Army Corps of Engineers has been tasked with preparing the dredged material portion of these IMO Ocean Dumping Reports.

Reports Numbering System

The following microfiche contain all 90 U. S. prepared CY 1983 IMO dredging Material Ocean Disposal Reports. They are numbered as follows:

(1) Reports P-1 through P-40 represent the 40 CY 1983 permitted dredged material ocean disposal activities conducted under authority of Section 103 of the Marine Protection Research and Sanctuaries Act of 1972.

(2) Reports C-1 through C-50 represent the 50 CY 1983 Corps of Engineers dredge material ocean disposal activities as authorized by the United States Congress.

Summary of Data

During CY 1983, the U. S. ocean disposed 44,265,978 cubic meters of dredged material of which: 2,990,609 cubic meters were disposed under Section 103 authority, and 41,275,369 cubic meters were disposed under Corps project authority.

Geographical distribution of the U. S. CY 1983 ocean disposal dredged material was as follows:

<u>Area</u>	<u>Cubic Meters</u>	<u>IMO Report References</u>
Atlantic Ocean	9,579,127	P-1 through P-30, C-1 through C-21
Gulf of Mexico	28,667,442	C-22 through C-35
Pacific Ocean	6,019,409	P-31 through P-40, C-36 through C-50

Authorship

The enclosed 90 IMO Ocean Dumping Reports were prepared by numerous Corps of Engineers employees in 20 Corps districts and divisions which have coastal boundaries. For additional information concerning this report, the central point of contact in the United States Government is:

Water Resources Support Center (WRSC-D)
Corps of Engineers
Casey Building
Ft. Belvoir, VA 22060-5586

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LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expire date:

Permittee: Bath Iron WorksDate issued: 7 July 1982 Permit No. 82-228Start Date: 7 July 1982 Expiry Date: 31 Dec. 1985

3. Country of origin of wastes and port of loading:

a. United States of America

b. Portland Harbor, Maine

4. Specification of dredged material and process from which derived:

a. Description: Dark-gray to black organic mud; very fine brownish gray sandy mud, shell & organic material; glacial-fluvial clay interbedded with silts & sands mostly gray with some brown coloration.

b. Mode of dredging: Clamshell-Bucket

c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal:
Saturated cohesive & non-cohesive material6. Total quantity (cubic meters): 91,400m³

7. Expected frequency of dumping (for reporting period):

a. Twice daily, seven days a week

b. Actual start: 1 Jan 1983c. Actual completion: 4 Feb 1983

8. Chemical composition:

Average: 9 stations at top, middle, b

Liquid Phase Test Results

Bulk Sediment Test Results

Metals (ppm)

Organics

Metals (ppm, dry wt.)

As < 0.05

V < 0.01

Cd < 0.006

Cr < 0.01

Cu < 0.01

Pb < 0.05

Hg < 0.0002

Ni < 0.01

Zn < 0.23

PCB 5(ppb)

Oil & Grease 2%

As 2.71

Cd 1.82

Cr 25.10

Cu 132

Hg 0.66

Ni 25.6

Pb 159

Zn 321

Organics (dry wt.)

PCB 1.65 (ppb)

Oil & Grease 1.50%

Other

Vol. solids 10.5%

9. Properties of dredged material:

a. Solubility (% water)

b. Density (gm/cc)

c. pH

d. % sand _____ % silt _____ % clay _____

10. Method of packaging:

11. Method of release: The scow releases the dredged material through hydraulically operated doors upon coming to a halt at the dumping point.

12. Procedure and site for tank washing: Normally, scows are washed down at either the dredge or dump site.

13. Approved dumping site: Portland Disposal Area

a. Geographical position (latitude and longitude):

43° 34.1' N

70° 02.0' W

b. Depth of Water (meters): 50m

c. Distance from nearest coast (kilometers): 14km

14. Additional information: No significant effect indicated by bioassay or bioaccumulation tests.

This dumpsite is subject to monitoring studies under the disposal area monitoring system (DAMOS) program. The program is designed to identify and evaluate impacts resulting from the disposal of dredged materials at designated dump sites. The DAMOS program continually contributes to the development of new monitoring methodologies that reflect on the efficiency of field observations and logistics, as well as time.

This program is designated to comply with sections 228.9 and 228.10 of the ocean dumping act relative to dump site monitoring and the evaluation of disposal.

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expire date:

Permittee: Roger HaleDate issued: 5 April 1982 Permit No. 82-104Start Date: 5 April 1982 Expiry Date: 31 Dec. 1985

3. Country of origin of wastes and port of loading:

a. United States of America

b. Portland Harbor, Maine

4. Specification of dredged material and process from which derived:

a. Description: Clay & gravel

b. Mode of dredging: Clamshell

c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal:
Cohesive & non-cohesive saturated material6. Total quantity (cubic meters): 574m³

7. Expected frequency of dumping (for reporting period):

a. 1 load

b. Actual start: 27 March 1983c. Actual completion: 27 March 1983

8. Chemical composition:

Liquid Phase Test ResultsBulk Chemical Analysis

None

Metals (mg/kg)

East Side

West Side

Cadmium	3.58	2.87
Lead	266.0	487.0
Zinc	120.6	363.0
Copper	97.7	112.0
Mercury	0.35	9.0

Organics

% Oil & Grease	0.00137	0.00149
----------------	---------	---------

9. Properties of dredged material: N/A

a. Solubility (% water)

b. Density (gm/cc)

c. pH

d. % sand _____ % silt _____ % clay _____

10. Method of packaging: See 4c

11. Method of release: Six bottom doors operated hydraulically, material is released intermittently while the scow is held at a complete halt.

12. Procedure and site for tank washing: The washing of scow is done either at dredge or disposal site.

13. Approved dumping site: Portland Disposal Area

a. Geographical position (latitude and longitude):

43° 34' 6.8"N
70° 01' 54.7"W

b. Depth of Water (meters): 50mc. Distance from nearest coast (kilometers): 14km

14. Additional information: No significant effect indicated by bioassay or bioaccumulation tests.

This dumpsite is subject to monitoring studies under the disposal area monitoring system (DAMOS) program. The program is designed to identify and evaluate impacts resulting from the disposal of dredged materials at designated dump sites. The DAMOS program continually contributes to the development of new monitoring methodologies that reflect on the efficiency of field observations and logistics, as well as time.

This program was designated to comply with sections 228.9 and 228.10 of the Ocean Dumping Act relative to dump site monitoring and the evaluation of disposal impacts.

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expire date:

Permittee: Merrill Industries, Inc.Date issued: 13 May 1981 Permit No. 01-157Start Date: 13 May 1981 Expire Date: 31 Dec. 1984

3. Country of origin of wastes and port of loading:

a. United States of America

b. Portland Harbor, Maine

4. Specification of dredged material and process from which derived:

a. Description: Primarily gray organic sandy silt. Some clay

b. Mode of dredging: Clamshell

c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal:
Saturated cohesive & non-cohesive material6. Total quantity (cubic meters): 30,000m³

7. Expected frequency of dumping (for reporting period):

a. 2 loads per day

b. Actual start: 27 June 1983c. Actual completion: 28 October 1983

8. Chemical composition:

Bulk Chemical Analysis

Metals (mg/kg)

	May 1981	Jan 1980
Zn	92.2	62.5
Pb	9.9	25.0
Hg	0.2	<1.0
Cr	18.6	19.0
Cu	34.0	29.5
Ni	29.2	19.0
Cd	0.06	<1.4
V	22.2	72.5

Organics

% Oil & Grease	0.008	0.00175
% Vol. Solids	0.7	3.2

9. Properties of dredged material:

- a. Solubility (% water): 24%
- b. Density (gm/cc)
- c. pH: 18% Fines
- d. % sand _____ % silt _____ % clay _____

10. Method of packaging:

11. Method of release: Six bottom doors operated hydraulically. Material is released intermittently while scow is held at complete halt.

12. Procedure and site for tank washing: Normally, scows are washed down at either the disposal or dredge site.

13. Approved dumping site: Portland Disposal Site

a. Geographical position (latitude and longitude):43° 34.1' N70° 1.8' Wb. Depth of Water (meters): 50mc. Distance from nearest coast (kilometers): 14km

14. Additional information: Piggybacked on Federal project bioassay results.

This dumpsite is subject to monitoring studies under the disposal area monitoring system (DAMOS) program. The program is designated to identify and evaluate impacts resulting from the disposal of dredged materials at the designated dump sites. The DAMOS program continually contributes to the development of new monitoring methodologies that reflect on the efficiency of field observations and logistics, as well as time.

This program was designated to comply with sections 228.9 and 228.10 of the Ocean Dumping Act relative to dump site monitoring and the evaluation of disposal impacts.

LONDON DUMPING CONVENTION

P-4 Pg. 1 of 3

Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expire date:

Permittee: Antonio DiMillo

Date issued: 4 Aug. 1981 Permit No. 81-275

Start Date: 4 Aug. 1981 Expire Date: 31 Dec. 1984

3. Country of origin of wastes and port of loading:

a. United States of America

b. Portland, Maine

4. Specification of dredged material and process from which derived:

a. Description: Primarily organic silty sand, some clay

b. Mode of dredging: Clamshell

c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal:
Saturated cohesive & non-cohesive material

6. Total quantity (cubic meters): 1900m^3

7. Expected frequency of dumping (for reporting period):

a. 1 load per day

b. Actual start: 31 Mar 1983

c. Actual completion: 13 May 1983

3. Chemical composition:

Bulk Chemical Analysis (mg/kg)

Cd	1.5
Pb	615
Zn	527
Cu	126
Hg	0.16

Oil & Grease 987

9. Properties of dredged material: N/A

a. Solubility (% water)

b. Density (gm/cc)

c. pH

d. % sand _____ % silt _____ % clay _____

10. Method of packaging:

11. Method of release: Six bottom doors operated hydraulically. Material is released intermittently while scows held at a complete halt.

12. Procedure and site for tank washing: Scows are washed either at the dredge or disposal site.

13. Approved dumping site: Portland Disposal Site

a. Geographical position (latitude and longitude):

43° 34.1'N
70° 1.8'W

b. Depth of Water (meters): 50M

c. Distance from nearest coast (kilometers): 14km

14. Additional information: Piggybacked on Federal project bioassay results.

This dumpsite is subject to monitoring studies under the disposal area monitoring system (DAMOS) program. The program is designed to identify and evaluate impacts resulting from the disposal of dredged materials at designated dump sites. The DAMOS program continually contributes to the development of new monitoring methodologies that reflect on the efficiency of field observations and logistics, as well as time.

This program was designated to comply with sections 228.9 and 228.10 of the Ocean Dumping Act relative to dump site monitoring and the evaluation of disposal impacts.

Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expire date:

Permittee: City of PortlandDate issued: 8 March 1982 Permit No. 92-066Start Date: 8 March 1982 Expire Date: 31 Dec. 1985

3. Country of origin of wastes and port of loading:

a. United States of America

b. Portland Harbor, Maine

4. Specification of dredged material and process from which derived:

a. Description: Organic mud, silty clay & sand

b. Mode of dredging: Clamshell and/or dragline equipment

c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal:
Saturated cohesive & non-cohesive material6. Total quantity (cubic meters): 72,700m³

7. Expected frequency of dumping (for reporting period):

a. 1 load per day

b. Actual start: 2 Jan 1983c. Actual completion: 27 June 1983

8. Chemical composition:

Elutriate Data (mg/l)

Metals

	Site A	Site B
Cd	<0.006	<0.006
Cr	<0.02	<0.02
Pb	0.05	0.05
Hg	<0.0002	<0.0002
Ni	0.02	0.02
Zn	0.38	0.42
As	<0.05	<0.05
V	<0.01	<0.01

Organics

Oil & Grease	6.86	15.07
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Bulk Chemical Test

Metals

	Site A	Site B
Cd	0.64	0.24
Cr	42.4	56.2
Pb	3.6	2.8
Hg	28.2	21.6
Ni	24.2	30.4
Zn	207.9	173.3
As	84.2	63.5
V	51.8	54.2

Organics

Oil & Grease	0.24%	0.22%
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All concentrations
are average values in
ppm.

9. Properties of dredged material: N/A

a. Solubility (% water)

b. Density (gm/cc)

c. pH

d. % sand _____ % silt _____ % clay _____

10. Method of packaging:

11. Method of release: Six bottom doors operated hydraulically. Material is released intermittently while scow is held at a complete halt.

12. Procedure and site for tank washing: Normally, scows are washed down at dredge or disposal site.

13. Approved dumping site: Portland Disposal Site

a. Geographical position (latitude and longitude):

43° 34.1' N

70° 1.8' W

b. Depth of Water (meters): 50m

c. Distance from nearest coast (kilometers): 14km

14. Additional information: This project utilized results of Federal project data from Portland (piggyback).

Additional testing information may be obtained by looking at Federal project in Portland, Maine.

This dumpsite is subject to monitoring studies under the disposal area monitoring system (DAMOS) program. The program is designed to identify and evaluate impacts resulting from the disposal of dredged materials at designated dump sites. The DAMOS program continually contributes to the development of new monitoring methodologies that reflect on the efficiency of field observations and logistics, as well as time.

This program was designated to comply with sections 228.9 and 228.10 of the Ocean Dumping Act relative to dump site monitoring and the evaluation of disposal impacts.

LONDON DUMPING CONVENTION

P-6 Pg. 1 of 3

Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expire date:

Permittee: Maine DOT

Date issued: 9 March 1983 Permit No. 83-042

Start Date: 9 March 1983 Expire Date: 31 Dec. 1986

3. Country of origin of wastes and port of loading:

a. United States of America

b. Stonington, Maine

4. Specification of dredged material and process from which derived:

a. Description: Silty sand

b. Mode of dredging: Clamshell

c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal:
Saturated cohesive & non-cohesive material

6. Total quantity (cubic meters): 19,000m³

7. Expected frequency of dumping (for reporting period):

a. 1 load per day

b. Actual start: 26 June 1983

c. Actual completion: 9 Sept. 1983

8. Chemical composition:

Project utilized Federal project test data

9. Properties of dredged material: N/A

a. Solubility (% water)

b. Density (gm/cc)

c. pH

d. % sand _____ % silt _____ % clay _____

10. Method of packaging:

11. Method of release: Six bottom doors operated hydraulically. Material is released intermittently while scow is at a complete halt.

12. Procedure and site for tank washing: Hoppers are washed at an authorized disposal site.

13. Approved dumping site: St. Helena Island

a. Geographical position (latitude and longitude):

44° 08.1' N

68° 39.1' W

b. Depth of Water (meters): 70m

c. Distance from nearest coast (kilometers): 2km

14. Additional information:

Liquid Phase Bioassay: Significant mortality one species; however, LPC not exceeded.

Suspend Particulate Phase Bioassay: Significant mortality one species; however LPC not exceeded.

Solid Phase Bioassay: No significant effect

Bioaccumulation: Significant uptake of Cd one species

LONDON DUMPING CONVENTION

P-7 Pg. 1 of 3

Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expire date:

Permittee: Curtis Heanspier

Date issued: 24 Jan. 1983 Permit No. 93-020

Start Date: 24 Jan. 1983 Expire Date: 31 Dec. 1983

3. Country of origin of wastes and port of loading:

a. United States of America

b. Deer Island, Maine

4. Specification of dredged material and process from which derived:

a. Description: Silts & sand

b. Mode of dredging: Clamshell

c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal:
Saturated cohesive & non-cohesive material

6. Total quantity (cubic meters): 1721m³

7. Expected frequency of dumping (for reporting period):

a. 1 load per day

b. Actual start: March 1983

c. Actual completion:

8. Chemical composition:

Bulk Chemical Test

Metals

Arsenic	5.23
Cadmium	0.386
Chromium	24.1
Copper	8.65
Lead	17.1
Mercury ug/g	
dry wt.	<0.5
Nickel	10.1
Vanadium	14.1
Zinc	36.2

All values in
mg/kg unless
otherwise noted.

Organics

Oil & Grease total
recoverable dry wt. % 0.013

Total solid, wt. % 75.3

Total volatile solids
% dry wt. 2.2

9. Properties of dredged material:

a. Solubility (% water)

b. Density (gm/cc)

c. pH

d. % sand _____ % silt _____ % clay _____

10. Method of packaging:

11. Method of release: Six bottom doors open hydraulically. Material is released intermittently while scow is held at a complete halt.

12. Procedure and site for tank washing: The washing of scows is done either at dredge or disposal site.

13. Approved dumping site:

a. Geographical position (latitude and longitude):

44° 08.1' N

68° 39.1' W

b. Depth of Water (meters): 30m

c. Distance from nearest coast (kilometers): 2km

14. Additional information: Exempt from biological testing
due to clean nature of the material.

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expire date:

Permittee: Boston Edison Company

Date issued: 27 Aug 1982 Permit No. 82-280

Start Date: 27 Aug 1982 Expire Date: 31 Dec. 1985

3. Country of origin of wastes and port of loading:

a. United States of America

b. Everett, Massachusetts

4. Specification of dredged material and process from which derived:

a. Description: Primarily sand, some silt, clay & gravel

b. Mode of dredging: Clamshell

c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal:
Saturated cohesive & non-cohesive material

6. Total quantity (cubic meters): 65,375m³

7. Expected frequency of dumping (for reporting period):

a. 1 load per day

b. Actual start: 11 Feb 83

c. Actual completion: 4 May 83

8. Chemical composition:

Bulk Chemical Analysis

Metals (mg/kg)

	1976 PE-6 PE-6 0.0-0.17'	1978 GEB-2 Surface	1980 PE-6 0.0-0.25	1980 PE-6 1.35'-1.60'
Hg ppm	1.24	1.4	1.3	0.7
Cd "	7.3	10.9	6.0	12.0
Pb "	249	555.1	137	111
As "	23	26.5	22	31
Cr "	234	277.5	70	66
Cu "	244	446.5	116	30
Ni "	78	132.7	27	37
Zn "	436	711.2	224	257

9. Properties of dredged material: N/A

a. Solubility (% water)

b. Density (gm/cc)

c. pH

d. % sand _____ % silt _____ % clay _____

10. Method of packaging:

11. Method of release: Six bottom doors operated hydraulically. Material is released intermittently while the scow is held at a complete halt.

12. Procedure and site for tank washing: Hopper is washed at an authorized disposal area.

13. Approved dumping site:

- a. Geographical position (latitude and longitude):
42° 25.7' N
70° 34.0' W
- b. Depth of Water (meters): 77m
- c. Distance from nearest coast (kilometers): 18.3km

14. Additional information: No significant effect as indicated by bioassay or bioaccumulation tests performed for Mystic River Federal project.

This dumpsite is subject to monitoring studies under the disposal area monitoring system (DAMOS) program. The program is designed to identify and evaluate impacts resulting from the disposal of dredged materials at designated dump sites. The DAMOS program continually contributes to the development of new monitoring methodologies that reflect on the efficiency of field observations and logistics, as well as time.

This program was designated to comply with sections 228.9 and 228.10 of the Ocean Dumping Act relative to dump site monitoring and the evaluation of disposal impacts.

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expire date:

Permittee: DEQE

Date issued: 15 Dec. 1982 Permit No. 82-371

Start Date: 15 Dec. 1982 Expire Date: 31 Dec. 1985

3. Country of origin of wastes and port of loading:

a. United States of America

b. Neponset River

4. Specification of dredged material and process from which derived:

a. Description: Silty sand

b. Mode of dredging: Clamshell

c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal:
Saturated cohesive & non-cohesive material

6. Total quantity (cubic meters): 24,350m³

7. Expected frequency of dumping (for reporting period):

a. 1 trip per day

b. Actual start: 10 Sept. 1983

c. Actual completion: 9 Dec. 1983

8. Chemical composition:

	Station 1	Station 2	Station 3
<u>ELUTRIATE (mg/l)</u>			
<u>Nutrients:</u>			
TKN	2.35	2.48	1.97
COD	190.3	202.6	310.3
<u>Metals:</u>			
Cd	0.006	0.006	0.006
Cr	0.04	0.02	0.02
Cu	0.01	0.01	0.76
Hg (ug/l)	0.02	0.02	0.05
Zn	0.01	0.15	0.08
Pb	0.05	0.05	0.05
V	0.05	0.05	0.05
As	0.035	0.032	0.023
Ni	0.02	0.02	0.02
<u>Organics</u>			
Oil and Grease	2.1	72.0	72.0
% Vol. Solids	17.8	17.9	18.1
Chlorinated Hydro-carbon Pesticides	5 ug/kg	5 ug/kg	5 ug/kg
pcb	3 ug/kg	3 ug/kg	3 ug/kg
<u>BULK SEDIMENT (mg/kg)</u>			
<u>Metals</u>			
Cd	1.72	8.04	9.56
Cr	249.20	233.50	258.71
Cu	179.38	165.18	172.05
Pb	13.96	40.65	38.23
Hg (ug/kg)	0.782	0.388	0.353
Zn	397.43	366.68	407.82
V	160	139	178
As	0.009	0.056	0.028
Ni	32.22	35.46	25.49
<u>Organics</u>			
Oil and Grease	10,839.04	6695.18	8096.20
COD	177,369.2	230,381.8	200,553.0
% Vol. Solids	12.22	8.62	13.19
PCB's	3(ug/kg)	3 (ug/kg)	3 (ug/kg)
Chlorinated Hydro-carbon Pesticides	5 (ug/kg)	5 (ug/kg)	3 (ug/kg)
<u>Other</u>			
% Solids	35.13	36.92	33.50
TKN	4502.7	3807.5	4502.7

9. Properties of dredged material:

- a. Solubility (% water)
- b. Density (gm/cc)
- c. pH
- d. % sand _____ % silt _____ % clay _____

10. Method of packaging:

11. Method of release: Six bottom doors open hydraulically. Material is released intermittently while scow is held at a complete halt.

12. Procedure and site for tank washing: Hopper is washed at an authorized disposal area.

13. Approved dumping site:

a. Geographical position (latitude and longitude):

42° 25.7' N
70° 34.0' W

b. Depth of Water (meters): 77m

c. Distance from nearest coast (kilometers): 18.3km

14. Additional information: No significant effect indicated by bioassay or bioaccumulation tests.

This dumpsite is subject to monitoring studies under the disposal area monitoring system (DAMOS) program. The program is designed to identify and evaluate impacts resulting from the disposal of dredged materials at designated dump sites. The DAMOS program continually contributes to the development of new monitoring methodologies that reflect on the efficiency of field observations and logistics, as well as time.

This program was designated to comply with sections 228.9 and 228.10 of the Ocean Dumping Act relative to dump site monitoring and the evaluation of disposal impacts.

LONDON DUMPING CONVENTION

P-10 Pg. of 3

Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expire date:

Permittee: Pittston Petroleum, Inc.

Date issued: 29 Sept. 1982 Permit No. 82-308

Start Date: 29 Sept. 1982 Expire Date: 31 Dec. 1985

3. Country of origin of wastes and port of loading:

- a. United States of America
- b. Mystic River, Chelsea, Mass.

4. Specification of dredged material and process from which derived:

- a. Description: Silty clayey material
- b. Mode of dredging: Clamshell
- c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal:
Saturated cohesive & non-cohesive material

6. Total quantity (cubic meters): 10,557m³

7. Expected frequency of dumping (for reporting period):

- a. 1 load per day
- b. Actual start: 21 Sept. 1983
- c. Actual completion: 31 Dec. 1985

8. Chemical composition:

Bulk Sediment Test (mg/kg)

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>
Cd	485	22.5	4.0	0.5	75
Cu	250	260	200	80	47
Pb	1,100	400	500	1,200	450
Hg	1960	3160	2300	5760	1,140
Ni	36.0	47.0	16	35.5	16.5
Zn	86,250	29.5	7.5	465	175
As	3.0	1.3	1.25	1.6	1.1

Organics:

Oil and Grease

	10.882	3.115	880	542.3	31.44
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% Vol. Solids

	12.74	4.88	7.31	3.14	2.09
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PCB's	0.5	0.5	0.5	0.5	0.5
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Other:

% Moisture	49.77	57.90	49.64	21.81	31.10
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% Solid	12.74	4.88	7.31	79.19	68.90
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Kjeldahl	4.620	4060	3920	4760	3920
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C.O.D.	165,000	68,900	92,500	25,500	34,000
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9. Properties of dredged material:

a. Solubility (% water)

b. Density (gm/cc)

c. pH

d. % sand _____ % silt _____ % clay _____

10. Method of packaging:

11. Method of release: Six bottom doors open hydraulically. Material is released intermittently while scow is held at a complete halt.

12. Procedure and site for tank washing: The washing of scows is done either at dredge or disposal site.

13. Approved dumping site: Foul area

a. Geographical position (latitude and longitude):42° 25.7' N70° 34.0' Wb. Depth of Water (meters): 77mc. Distance from nearest coast (kilometers): 18.3km

14. Additional information:

Liquid Phase Bioassay: Significant mortality one species; however, LPC not exceeded.

Suspend Particulate Phase Bioassay: Significant mortality one species; however, LPC not exceeded.

Solid Phase Bioassay: No analysis needed (96.7% for treatment survival vs. 95.3% survival for reference)

Bioaccumulation: Significant uptake of Petroleum Hydrocarbon two species.

This dumpsite is subject to monitoring studies under the disposal area monitoring system (DAMOS) program. The program is designed to identify and evaluate impacts resulting from the disposal of dredged materials at designated dump sites. The DAMOS program continually contributes to the development of new monitoring methodologies that reflect on the efficiency of field observations and logistics, as well as time.

This program was designated to comply with sections 228.9 and 228.10 of the Ocean Dumping Act relative to dump site monitoring and the evaluation of disposal impacts.

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division North Atlantic

District New York

2. Permit start date/expire date:

Permittee: Port Authority of New York & New Jersey

Date issued: 22 Apr 75

Permit No. 9232

Start Date: 22 Apr 75

Expiry Date 22 Apr 85

3. Country of origin of wastes and port of loading:

a. United States of America

b. Newark Bay, New Jersey

4. Specification of dredged material and process from which derived:

a. Description: silty clay

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 4,000 cy capacity

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 163,500 cy = 125,000 m³

7. Expected frequency of dumping (for reporting period):

a. 2 trips/day

b. Actual start: 25 Jan 83

c. Actual completion: 23 Sep 83

8. Chemical composition:

	<u>Site Water (S.D.)</u>	<u>Elutriate (S.D.)</u>
Petrol. Hydro.	< 200.0 (-)	< 200.0 (-)
PCB	< 0.01 (-)	< 0.01 (-)
Hg	< 0.2 (-)	< 0.2 (-)
Cd	< 0.1 (-)	< 0.01 (-)
DDT	< 0.05 (-)	< 0.05 (-)
9. Properties of dredged material:
 - a. Solubility (% water) 66.5
 - b. Density (gm/cc) Not Available
 - c. pH Not Available
 - d. % sand 15.75 % silt 66.02 % clay 18.23
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors.
12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.
13. Approved dumping site:
 - a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
 - b. Depth of water (meters): 20 m.
 - c. Distance from nearest coast (kilometers): 9 Km.
14. Additional information: See attached.

Bioassays and Bioassessment Evaluations

a. Liquid Phase Bioassay (EC50 or LC50 for each test species)@ 96 hrs.

<u>Skeletonema costatum</u>	> 100%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species)@ 96 hrs.

<u>Skeletonema costatum</u>	43%
<u>Mysidopsis bahia</u>	>100%
<u>Menidia menidia</u>	>100%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes</u> sp.	-1.0	Negative indicates greater mortality in Control
<u>Mercenaria mercenaria</u>	3.0	
<u>Nereis virens</u>	4.0	

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data:

Petrol. Hydro. were statistically significant in Palaemonetes sp. (0.14 ppm), Mercenaria sp. (0.25 ppm) and Nereis sp. (0.31 ppm).

PCB's were statistically significant in Mercenaria sp. (0.05 ppm).

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:
Division North Atlantic District New York
2. Permit start date/expire date:
Permittee: Mobil Oil Corp.
Date issued: 6 Dec 82 Permit No. 12697
Start Date: 6 Dec 82 Expiry Date 6 Dec 85
3. Country of origin of wastes and port of loading:
 - a. United States of America
 - b. Arthur Kill, New York
4. Specification of dredged material and process from which derived:
 - a. Description: silty clay
 - b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock
 - c. Mode of transportation: towed barge; 4,000 cy capacity
5. Form in which dredged material is presented for disposal: slurry-noncohesive character.
6. Total quantity (cubic meters): 3,600 cy = 2,800 m³
7. Expected frequency of dumping (for reporting period):
 - a. 2 trips/day
 - b. Actual start: 1 Mar 83
 - c. Actual completion: 1 Mar 83

- | 8. Chemical composition:
in ppb | <u>Site Water (S.D.)</u> | <u>Elutriate (S.D.)</u> | - |
|------------------------------------|--------------------------|-------------------------|---|
| Petrol. Hydro. | 50.0 (-) | < 50.0 (-) | |
| PCB | 0.1 (-) | < 0.1 (-) | |
| Hg | 0.2 (-) | < 0.2 (-) | |
| Cd | 0.1 (-) | < 0.1 (-) | |
| DDT | 0.05 (-) | < 0.05 (-) | |
9. Properties of dredged material:
- a. Solubility (% water) 39.9
 - b. Density (gm/cc) Not Available
 - c. pH Not Available
 - d. % sand 47.6 % silt 32.6 % clay 19.8
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors.
12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.
13. Approved dumping site:
- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
 - b. Depth of water (meters): 20 m.
 - c. Distance from nearest coast (kilometers): 9 Km.
14. Additional information: See attached.

Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species)@ 96 hrs.

<u>Skeletonema costatum</u>	12.8%
<u>Mysidopsis bahia</u>	48.0%
<u>Menidia menidia</u>	> 100.0%

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	70.0%
<u>Mysidopsis bahia</u>	57.0%
<u>Menidia menidia</u>	55.0%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palamonetes sp.</u>	2.70	Negative indicates greater mortality in control.
<u>Mercenaria mercenaria</u>	1.00	
<u>Nereis virens</u>	-4.00	

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data:

Petrol. Hydro. were statistically significant in Mercenaria sp. (0.33 ppm) and Nereis sp. (0.24 ppm).

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:
Division North Atlantic District New York
2. Permit start date/expire date:
Permittee: B. P. Oil Co.
Date issued: 11 Dec 81 Permit No. 12200
Start Date: 11 Dec 81 Expiry Date 11 Dec 84
3. Country of origin of wastes and port of loading:
 - a. United States of America
 - b. Arthur Kill, New Jersey
4. Specification of dredged material and process from which derived:
 - a. Description: silty clay
 - b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock
 - c. Mode of transportation: towed barge; 4,000 cy capacity
5. Form in which dredged material is presented for disposal: slurry-noncohesive character.
6. Total quantity (cubic meters): 10,800 cy = 8,300 m³
7. Expected frequency of dumping (for reporting period):
 - a. 1 trip/day
 - b. Actual start: 24 Feb 83
 - c. Actual completion: 1 Mar 83

- | 8. Chemical composition:
in ppb | <u>Site Water (S.D.)</u> | <u>Elutriate (S.D.)</u> |
|------------------------------------|--------------------------|-------------------------|
| Petrol. Hydro. | Not Available | < 50.0 (-) |
| PCB | | < 0.1 (-) |
| Hg | | < 0.2 (-) |
| Cd | | < 0.1 (-) |
| DDT | | < 0.05 (-) |
9. Properties of dredged material:
- a. Solubility (% water) 40.2
 - b. Density (gm/cc) Not Available
 - c. pH Not Available
 - d. % sand 46.7 % silt 33.7 % clay 40.2
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors.
12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.
13. Approved dumping site:
- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
 - b. Depth of water (meters): 20 m.
 - c. Distance from nearest coast (kilometers): 9 Km.
14. Additional information: See attached.

Bioassays and Bioassessment Evaluations

- a. Liquid Phase Bioassay (EC50 or LC50 for each test species)@ 96 hrs.

<u>Skeletonema costatum</u>	13.0%
<u>Mysidopsis bahia</u>	> 100.0%
<u>Menidia menidia</u>	> 100.0%

- b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	28.0%
<u>Mysidopsis bahia</u>	> 100.0
<u>Menidia menidia</u>	> 100.0%

- c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palamonetes</u> sp.	0	Negative indicates greater mortality in control
<u>Mercenaria mercenaria</u>	1.0	
<u>Nereis virens</u>	-2.0	

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data:

Petrol. Hydro. were statistically significant in Nereis sp. (1.275 ppm).

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division North Atlantic

District New York

2. Permit start date/expire date:

Permittee: Port Authority of New York & New Jersey

Date issued: 13 Aug 75

Permit No. 9372

Start Date: 13 Aug 75

Expiry Date: 13 Aug 85

3. Country of origin of wastes and port of loading:

a. United States of America

b. Hudson River, New York

4. Specification of dredged material and process from which derived:

a. Description: silty clay

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 4,000 cy capacity

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 269,000 cy = 205,700 m³

7. Expected frequency of dumping (for reporting period):

a. 3 trips/day

b. Actual start: 5 Mar 83

c. Actual completion: 7 Oct 83

- | 8. Chemical composition:
in ppb | <u>Site Water (S.D.)</u> | <u>Elutriate (S.D.)</u> |
|------------------------------------|--------------------------|-------------------------|
| DDT | Not Available | < 0.05 (-) |
| PCB | | < 0.1 (-) |
| Hg | | < 0.2 (-) |
| Cd | | < 0.1 (-) |
9. Properties of dredged material:
- a. Solubility (% water) 63.8
 - b. Density (gm/cc) Not Available
 - c. pH Not Available
 - d. % sand 11.26 % silt 63.03 % clay 25.71
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors.
12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site
13. Approved dumping site:
- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
 - b. Depth of water (meters): 20 m.
 - c. Distance from nearest coast (kilometers): 9 Km.
14. Additional information: See attached.

Bioassays and Bioassessment Evaluations

a. Liquid Phase Bioassay (EC50 or LC50 for each test species)@ 96 hrs.

<u>Skeletonema costatum</u>	>100%
<u>Mysidopsis bahia</u>	>100%
<u>Menidia menidia</u>	87%

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	27%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes</u> sp.	-.05	Negative indicates greater
<u>Mercenaria mercenaria</u>	-1.0	mortality in control
<u>Nereis virens</u>	2.0	

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data:

Petro. Hydro. were statistically significant in Mercenaria sp. (0.27 ppm),
Palaemonetes sp. (0.27 ppm) and Nereis sp. (0.23 ppm).

PCB's were statistically significant in Mercenaria sp. (0.09 ppm).

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:
 Division North Atlantic District New York
2. Permit start date/expire date:
 Permittee: Perth Amboy Dry Dock
 Date issued: 5 June 81 Permit No. 11945
 Start Date: 5 June 81 Expiry Date 5 June 84
3. Country of origin of wastes and port of loading:
 a. United States of America
 b. Arthur Kill, New Jersey
4. Specification of dredged material and process from which derived:
 a. Description: silty clay
 b. Mode of dredging: clamshell dredge; Warren Disch Contractor
 c. Mode of transportation: towed barge; 2000 cy capacity
5. Form in which dredged material is presented for disposal: slurry-noncohesive character.
6. Total quantity (cubic meters): 38,000 cy = 29,100 m³
7. Expected frequency of dumping (for reporting period):
 a. 1 trip/day
 b. Actual start: 4 Apr 83 c. Actual completion: 14 May 83

8. Chemical composition: in ppb
- | | <u>Site Water (S.D.)</u> | <u>Elutriate (S.D.)</u> |
|----------------|--------------------------|-------------------------|
| Petrol. Hydro. | < 100.0 (-) | < 100.0 (-) |
| PCB | < 0.1 (-) | < 0.1 (-) |
| Hg | < 0.2 (-) | < 0.2 (-) |
| Cd | < 0.1 (-) | < 0.1 (-) |
| DDT | < 0.05 (-) | < 0.05 (-) |
9. Properties of dredged material:
- a. Solubility (% water) 64.2
- b. Density (gm/cc) Not Available
- c. pH Not Available
- d. % sand 44.2 % silt 40.8 % clay 15.0
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors.
12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.
13. Approved dumping site:
- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
- b. Depth of water (meters): 20 m.
- c. Distance from nearest coast (kilometers): 9 Km.
14. Additional information: See attached.

Bioassays and Bioassessment Evaluations

a. Liquid Phase Bioassay (EC50 or LC50 for each test species)@ 96 hrs.

<u>Skeletonema costatum</u>	82%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	34%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palamonetes</u> sp.	4.0
<u>Mercenaria mercenaria</u>	1.0
<u>Nereis virens</u>	1.0

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data:

Petro. Hydro. were statistically significant in Nereis sp. (1.98 ppm).

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division North AtlanticDistrict New York

2. Permit start date/expire date:

Permittee: NYC Department of Ports and Terminals

Date issued: 2 Apr 83

Permit No. 12843

Start Date: 2 Apr 83

Expiry Date 2 Apr 86

3. Country of origin of wastes and port of loading:

a. United States of America

b. East River, New York

4. Specification of dredged material and process from which derived:

a. Description: silty clay

b. Mode of dredging: clamshell dredge; Weeks Dredging Company

c. Mode of transportation: towed barges; 4000 and 2000cy capacity

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 8000cy = 6100 m³

7. Expected frequency of dumping (for reporting period):

a. 1 trip/day

b. Actual start: 14 Apr 83

c. Actual completion: 26 Apr 83

8. Chemical composition:
in ppbSite Water (S.D.)Elutriate (S.D.)

Petrol. Hydro.

< 50.0 (-)

< 50.0 (-)

PCB

< 0.1 (-)

< 0.1 (-)

Hg

< 0.2 (-)

< 0.2 (-)

Cd

< 0.1 (-)

< 0.1 (-)

DDT

< 0.1 (-)

< 0.05 (-)

9. Properties of dredged material:

- a. Solubility (% water) 47.24
- b. Density (gm/cc) Not Available
- c. pH Not Available
- d. % sand 55.35 % silt 30.63 % clay 14.02

10. Method of packing: None

11. Method of release: Immediate release from bottom opening doors.

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.

13. Approved dumping site:

- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
- b. Depth of water (meters): 20 m.
- c. Distance from nearest coast (kilometers): 9 Km.

14. Additional information: See attached.

Bioassays and Bioassessment Evaluations

a. Liquid Phase Bioassay (EC50 or LC50 for each test species)@ 96 hrs.

<u>Skeletonema costatum</u>	> 100%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	37%
<u>Mysidopsis bahia</u>	31%
<u>Menidia menidia</u>	43%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palamonetes</u> sp.	4.0	Negative indicates greater
<u>Mercenaria mercenaria</u>	-1.0	mortality in control.
<u>Nereis virens</u>	4.0	

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: There was no statistically significant bioaccumulation of contaminants in any test species.

NOTE: All Bioassay and Bioaccumulation Data is that for sediment at the Port Authority (NY and NJ project, Permit #9466. Due to the close proximity of the projects and the chemical similarity of the sediment, this data was used to characterize the Ports and Terminals sediment.

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:
 Division North Atlantic District New York
2. Permit start date/expire date:
 Permittee: Port Authority of NY and NJ
 Date issued: 15 Oct 75 Permit No. 9466
 Start Date: 15 Oct 75 Expiry Date 15 Oct 85
3. Country of origin of wastes and port of loading:
 - a. United States of America
 - b. Gowanus Bay, NY
4. Specification of dredged material and process from which derived:
 - a. Description: silty clay
 - b. Mode of dredging: clamshell dredge; Great Lakes Dredge and Dock
 - c. Mode of transportation: towed barge; 4000cy capacity
5. Form in which dredged material is presented for disposal: slurry-noncohesive character.
6. Total quantity (cubic meters): 154,840cy = 118,400 m³
7. Expected frequency of dumping (for reporting period):
 - a. 3 trips/day
 - b. Actual start: 1 Jun 83
 - c. Actual completion: 10 Oct 83
8. Chemical composition:

	<u>Site Water (S.D.)</u>	<u>Elutriate (S.D.)</u>
Petrol. Hydro.	300.0 (0)	500.0 (0)*
PCB	< 0.1 (-)	< 0.1 (-)
Hg	0.27 (0.12)	0.53 (0.29)
Cd	< 0.1 (-)	< 0.1 (-)
DDT	< 0.05 (-)	< 0.05 (-)

(* statistical significance, 95% confidence level)

9. Properties of dredged material:

- a. Solubility (% water) 60.9%
- b. Density (gm/cc) Not Available
- c. pH Not Available
- d. % sand 25.7 % silt 44.7 % clay 29.6

10. Method of packing: None

11. Method of release: Immediate release from bottom opening doors.

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.

13. Approved dumping site:

- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
- b. Depth of water (meters): 20 m.
- c. Distance from nearest coast (kilometers): 9 Km.

14. Additional information: See attached.

Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species)@ 96 hrs.

<u>Skeletonema costatum</u>	> 100
<u>Mysidopsis bahia</u>	> 100
<u>Menidia menidia</u>	> 100

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	37
<u>Mysidopsis bahia</u>	31
<u>Menidia menidia</u>	43

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palamonetes</u> sp.	4.0	
<u>Mercenaria mercenaria</u>	-1.0	Negative indicates greater
<u>Nereis virens</u>	4.0	mortality

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: There was no statistically significant bioaccumulation of contaminants in any test species.

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:
Division North Atlantic District New York
2. Permit start date/expire date:
Permittee: NYC Dept. of Sanitation
Date issued: 9 Mar 83 Permit No. 12807
Start Date: 9 Mar 83 Expiry Date: 9 Mar 86
3. Country of origin of wastes and port of loading:
 - a. United States of America
 - b. Arthur Kill (Fresh Kills), NY
4. Specification of dredged material and process from which derived:
 - a. Description: silty clay
 - b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock
 - c. Mode of transportation: towed barge; 4,000 cy capacity
5. Form in which dredged material is presented for disposal: slurry-noncohesive character.
6. Total quantity (cubic meters): 248,400 cy = 190,000 m³
7. Expected frequency of dumping (for reporting period):
 - a. 2 trips/day
 - b. Actual start: 27 Jun 83
 - c. Actual completion: 17 Aug 83

8. Chemical composition: Site Water (S.D.) Elutriate (S.D.)
 in ppb
- | | | |
|----------------|------------|------------|
| Petrol. Hydro. | < 50.0 (-) | < 50.0 (-) |
| PCB | < 0.1 (-) | < 0.1 (-) |
| Hg | < 0.2 (-) | < 0.2 (-) |
| Cd | < 0.1 (-) | < 0.1 (-) |
| DDT | < 0.05 (-) | < 0.05 (-) |
9. Properties of dredged material:
- | | | |
|-------------------------|--------------------|-------------------|
| a. Solubility (% water) | 28.0 | |
| b. Density (gm/cc) | Not Available | |
| c. pH | Not Available | |
| d. % sand <u>79.9</u> | % silt <u>10.7</u> | % clay <u>9.4</u> |
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors.
12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.
13. Approved dumping site:
- | | |
|---|--------------------|
| a. <u>Geographical position (latitude and longitude):</u> | 40° 22'N; 73° 51'W |
| b. <u>Depth of water (meters):</u> | 20 m. |
| c. <u>Distance from nearest coast (kilometers):</u> | 9 Km. |
14. Additional information: See attached.

Bioassays and Bioassessment Evaluations

- a. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	> 100%
<u>Mysidopsis bahia</u>	.77%
<u>Menidia menidia</u>	> 100%

- b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	> 100%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

- c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palamonetes sp.</u>	5.6
<u>Mercenaria mercenaria</u>	2.0
<u>Nereis virens</u>	0.0

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: Petroleum Hydro. were statistically significant in Nereis sp. (0.879 ppm).

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:
Division North Atlantic District New York
2. Permit start date/expire date:
Permittee: Exxon Corporation - Pier 6, North
Date issued: 2 Jun 83 Permit No. 12908*
Start Date: 2 Jun 83 Expiry Date 2 Jun 86
3. Country of origin of wastes and port of loading:
 - a. United States of America
 - b. Kill Van Kull, NJ
4. Specification of dredged material and process from which derived:
 - a. Description: sandy silt
 - b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock
 - c. Mode of transportation: towed barge; 4,000 cy capacity
5. Form in which dredged material is presented for disposal: slurry-noncohesive character.
6. Total quantity (cubic meters): 115,602 cy = 88,400 m³*
* Note: The volume shown for this pier is the total volume dredged under this permit number for all piers. The work under this permit is divided into 4 pier areas, each of which is represented by separate testing and is shown in a separate London Dumping Convention Report.
7. Expected frequency of dumping (for reporting period):
 - a. 2 trips/day
 - b. Actual start: 1 Aug 83
 - c. Actual completion: 7 Oct 83

- | 8. Chemical composition:
in ppb | <u>Site Water (S.D.)</u> | <u>Elutriate (S.D.)</u> |
|------------------------------------|--------------------------|-------------------------|
| Petrol. Hydro. | 900.0 (-) | < 50.0 (-) |
| PCB | < 0.1 (-) | < 0.1 (-) |
| Hg | < 0.2 (-) | < 0.2 (-) |
| Cd | < 0.1 (-) | < 0.1 (-) |
9. Properties of dredged material:
- | | | |
|-------------------------|---------------|-------------|
| a. Solubility (% water) | 67.8% | |
| b. Density (gm/cc) | Not Available | |
| c. pH | Not Available | |
| d. % sand 25.4 | % silt 58.6 | % clay 16.0 |
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors.
12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.
13. Approved dumping site:
- | | |
|---|--------------------|
| a. <u>Geographical position (latitude and longitude):</u> | 40° 22'N; 73° 51'W |
| b. <u>Depth of water (meters):</u> | 20 m. |
| c. <u>Distance from nearest coast (kilometers):</u> | 9 Km. |
14. Additional information: See attached.

Bioassays and Bioassessment Evaluations

- a. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

Skeletonema costatum

Mysidopsis bahia

Menidia menidia

- b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species) @ 96 hrs.

Acartia tonsa

>100%

Mysidopsis bahia

75%

Menidia menidia

75%

- c. Solid Phase Bioassay (% mortality difference with respect to control)

Palamonetes sp.

1.0

Mercenaria mercenaria

0.0

Nereis virens

4.0

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: Petro Hydro were statistically significant in Nereis sp. (0.906 ppm).

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division North AtlanticDistrict New York

2. Permit start date/expire date:

Permittee: Exxon Corporation - Pier 7

Date issued: 2 Jun 83

Permit No. 12908*

Start Date: 2 Jun 83

Expiry Date 2 Jun 86

3. Country of origin of wastes and port of loading:

a. United States of America

b. Kill van Kull, NJ

4. Specification of dredged material and process from which derived:

a. Description: sand

b. Mode of dredging: clamshell dredge; Great Lakes Dredge and Dock

c. Mode of transportation: towed barge; 4,000cy capacity

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 115,602cy = 88,400 m³*

*Note: The volume shown for this pier is the total volume dredged under this permit number for all piers. The work under this permit is divided into 4 pier areas, each of which is represented by separate testing and is shown in a separate London Dumping Convention Report.

7. Expected frequency of dumping (for reporting period):

a. 2 trips/day

b. Actual start: 1 Aug 83

Actual completion: 7 Oct 83

8. Chemical composition: Site Water (S.D.) Elutriate (S.D.)
 in ppb
- | | | | | |
|----------------|-------|---------|--------|-----|
| Petrol. Hydro. | 233.3 | (317.5) | < 50.0 | (-) |
| PCB | < 0.1 | (-) | < 0.1 | (-) |
| Hg | < 0.2 | (-) | < 0.2 | (-) |
| Cd | < 0.1 | (-) | < 0.1 | (-) |
9. Properties of dredged material:
- a. Solubility (% water) 44.5
 - b. Density (gm/cc) Not Available
 - c. pH Not Available
 - d. % sand 58.9 % silt 28.2 % clay 12.9
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors.
12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.
13. Approved dumping site:
- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
 - b. Depth of water (meters): 20 m.
 - c. Distance from nearest coast (kilometers): 9 Km.
14. Additional information: See attached.

Bioassays and Bioassessment Evaluations

- a. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	> 100%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

- b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species) @ 96 hrs.

<u>Acartia tonsa</u>	> 100%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

- c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palamonetes</u> sp.	3.0
<u>Mercenaria mercenaria</u>	1.0
<u>Nereis virens</u>	3.0*

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: Petro. Hydro were statistically significant in Nereis sp. (1.50 ppm).

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division North AtlanticDistrict New York

2. Permit start date/expire date:

Permittee: Exxon Corporation - Pier 1, South

Date issued: 2 Jun 83

Permit No. 12908*

Start Date: 2 Jun 83

Expiry Date 2 Jun 86

3. Country of origin of wastes and port of loading:

a. United States of America

b. Kill van Kull, NJ

4. Specification of dredged material and process from which derived:

a. Description: sand

b. Mode of dredging: clamshell dredge; Great Lakes Dredge and Dock

c. Mode of transportation: towed barge; 4,000cy capacity

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 115,602cy = 88,400 m³*

*Note: The volume shown for this pier is the total volume dredged under this permit number for all piers. The work under this permit is divided into 4 pier areas, each of which is represented by separate testing and is shown in a separate London Dumping Convention Report.

7. Expected frequency of dumping (for reporting period):

a. 2 trips/day

b. Actual start: 1 Aug 83

c. Actual completion: 7 Oct 83

8. Chemical composition: Site Water (S.D.) Elutriate (S.D.)
 in ppb
- | | | | | |
|----------------|--------|-----|--------|-----|
| Petrol. Hydro. | < 50.0 | (-) | < 50.0 | (-) |
| PCB | < 0.1 | (-) | < 0.1 | (-) |
| Hg | < 0.2 | (-) | < 0.2 | (-) |
| Cd | < 0.1 | (-) | < 0.1 | (-) |
9. Properties of dredged material:
- Solubility (% water) 33.91
 - Density (gm/cc) Not Available
 - pH Not Available
 - % sand 74.05 % silt 17.21 % clay 8.74
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors.
12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.
13. Approved dumping site:
- Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
 - Depth of water (meters): 20 m.
 - Distance from nearest coast (kilometers): 9 Km.
14. Additional information: See attached.

Bioassays and Bioassessment Evaluations

- a. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	12%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

- b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	> 100%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

- c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes</u> sp.	1.0
<u>Mercenaria mercenaria</u>	1.0
<u>Nereis virens</u>	6.0*

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: Petro. Hydro were statistically significant in Mercenaria sp. (1.215 ppm) and Nereis sp. (1.353 ppm).

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division North Atlantic

District New York

2. Permit start date/expire date:

Permittee: Exxon Corp. - Pier 1

Date issued: 2 Jun 83

Permit No. 12908*

Start Date: 2 Jun 83

Expiry Date 2 Jun 86

3. Country of origin of wastes and port of loading:

a. United States of America

b. Kill Van Kull, NJ

4. Specification of dredged material and process from which derived:

a. Description: sandy silt

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 4,000 cy capacity

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 115,602 cy = 88,400 m³*

* Note: The volume shown for this pier is the total volume dredged under this permit number for all piers. The work under this permit is divided into 4 pier areas, each of which is represented by separate testing and is shown in a separate London Dumping Convention Report.

7. Expected frequency of dumping (for reporting period):

a. 2 trips/day

b. Actual start: 1 Aug 83

. Actual completion: 7 Oct 83

- | 8. Chemical composition:
in ppb | <u>Site Water (S.D.)</u> | <u>Elutriate (S.D.)</u> |
|------------------------------------|--------------------------|-------------------------|
| Petrol. Hydro. | < 50.0 (-) | < 50.0 (-) |
| PCB | < 0.1 (-) | < 0.1 (-) |
| Hg | < 0.2 (-) | < 0.2 (-) |
| Cd | < 0.1 (-) | < 0.1 (-) |
9. Properties of dredged material:
- | | | |
|-------------------------|--------------------|--------------------|
| a. Solubility (% water) | 61.2 | |
| b. Density (gm/cc) | Not Available | |
| c. pH | Not Available | |
| d. % sand <u>41.4</u> | % silt <u>45.1</u> | % clay <u>13.5</u> |
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors.
12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.
13. Approved dumping site:
- | | |
|---|--------------------|
| a. <u>Geographical position (latitude and longitude):</u> | 40° 22'N, 73° 51'W |
| b. <u>Depth of water (meters):</u> | 20 m. |
| c. <u>Distance from nearest coast (kilometers):</u> | 9 Km. |
14. Additional information: See attached.

Bioassays and Bioassessment Evaluations

- a. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	> 100%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

- b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	> 100%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

- c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes sp.</u>	2.0
<u>Mercenaria mercenaria</u>	3.0
<u>Nereis virens</u>	2.0

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: There was no statistically significant bioaccumulation of contaminants in any test species.

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division North Atlantic

District New York

2. Permit start date/expire date:

Permittee: NYC Department of Sanitation

Date issued: 2 Aug 83

Permit No. 12976

Start Date: 2 Aug 83

Expiry Date 2 Aug 86

3. Country of origin of wastes and port of loading:

a. United States of America

b. New York Harbor, NY

4. Specification of dredged material and process from which derived:

a. Description: sand

b. Mode of dredging: clamshell dredge; Great Lakes Dredge and Dock

c. Mode of transportation: towed barge; 4,000cy capacity

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 14,400cy = 11,000 m³

7. Expected frequency of dumping (for reporting period):

a. 1 trip/day

b. Actual start: 5 Aug 83

c. Actual completion: 26 Aug 83

8. Chemical composition:
in ppb

Site Water (S.D.)

Elutriate (S.D.)

Petrol. Hydro.

< 50.0 (-)

51.7 (2.9)

PCB

< 0.1 (-)

< 0.1 (-)

Hg

< 0.2 (-)

< 0.2 (-)

Cd

< 0.1 (-)

< 0.1 (-)

9. Properties of dredged material:

- a. Solubility (% water) 48.3%
- b. Density (gm/cc) Not Available
- c. pH Not Available
- d. % sand 60.0 % silt 11.3 % clay 28.7

10. Method of packing: None

11. Method of release: Immediate release from bottom opening doors.

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.

13. Approved dumping site:

- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
- b. Depth of water (meters): 20 m.
- c. Distance from nearest coast (kilometers): 9 Km.

14. Additional information: See attached.

Bioassays and Bioassessment Evaluations

- a. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	18%
<u>Mysidopsis bahia</u>	100%
<u>Menidia menidia</u>	> 100%

- b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species) @ 96 hrs.

<u>Acartia tonsa</u>	29%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

- c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palamonetes</u> sp.	0 Negative indicates greater
<u>Mercenaria mercenaria</u>	0 mortality in control.
<u>Nereis virens</u>	-3.0

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: There was no statistically significant bioaccumulation of contaminants in any test species.

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division North Atlantic

District New York

2. Permit start date/expire date:

Permittee: Exxon Co., USA

Date issued: 5 May 83

Permit No. 12883

Start Date: 5 May 83

Expiry Date 5 May 86

3. Country of origin of wastes and port of loading:

a. United States of America

b. Arthur Kill, NJ

4. Specification of dredged material and process from which derived:

a. silt

b. Mode of dredging: clamshell dredge; Weeks Dredging Co.

c. Mode of transportation: towed barge; 4,000cy capacity

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 12,000cy = 9,200 m³

7. Expected frequency of dumping (for reporting period):

a. 1 trip/day

b. Actual start: 17 Aug 83

c. Actual completion: 19 Aug 83

8. Chemical composition:
in ppb

Site Water (S.D.)

Elutriate (S.D.)

Petrol. Hydro.

< 50.0

< 50.0 (-)

PCB

< 0.1

< 0.1 (-)

Hg

15.13 (16)

5.60 (0.38)

Cd

< 0.1

< 0.1 (-)

9. Properties of dredged material:

a. Solubility (% water) 71.2

b. Density (gm/cc) Not Available

c. pH Not Available

d. % sand 11.0 % silt 14.0 % clay 14.7

10. Method of packing: None

11. Method of release: Immediate release from bottom opening doors.

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.

13. Approved dumping site:

a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W

b. Depth of water (meters): 20 m.

c. Distance from nearest coast (kilometers): 9 Km.

14. Additional information: See attached.

Bioassays and Bioassessment Evaluations

a. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	>	100%
<u>Mysidopsis bahia</u>	>	100%
<u>Menidia menidia</u>	>	100%

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>		54%
<u>Mysidopsis bahia</u>	>	100%
<u>Menidia menidia</u>	>	100%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palamonetes</u> sp.	-0.7	Negative indicates greater
<u>Mercenaria mercenaria</u>	0.0	mortality in control.
<u>Nereis virens</u>	2.0	

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: There was no statistically significant bioaccumulation of contaminants in any test species.

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division North AtlanticDistrict New York

2. Permit start date/expire date:

Permittee: Celanese Chemical Company

Date issued: 30 Dec 74

Permit No. 9118

Start Date: 30 Dec 74

Expiry Date 30 Dec 84

3. Country of origin of wastes and port of loading:

a. United States of America

b. Passaic River, NJ

4. Specification of dredged material and process from which derived:

a. Description: silt

b. Mode of dredging: clamshell dredge; Weeks Dredging Company

c. Mode of transportation: towed barge; 4,000cy capacity

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 23,100cy = 17,700 m³

7. Expected frequency of dumping (for reporting period):

a. 2 trips/day

b. Actual start: 25 Aug 83

c. Actual completion: 27 Aug 83

8. Chemical composition:
in ppbSite Water (S.D.)Elutriate (S.D.)

DDT

Not Available

< 0.05 (-)

PCB

0.16 (0.03)

Hg

0.3 (0)

Cd

< 0.1 (-)

9. Properties of dredged material:

- a. Solubility (% water) 54.0%
- b. Density (gm/cc) Not Available
- c. pH Not Available
- d. % sand 5.2 % silt 68.7 % clay 26.1

10. Method of packing: None

11. Method of release: Immediate release from bottom opening doors.

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.

13. Approved dumping site:

- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
- b. Depth of water (meters): 20 m.
- c. Distance from nearest coast (kilometers): 9 Km.

14. Additional information: See attached.

Bioassays and Bioassessment Evaluations

- a. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	84
<u>Mysidopsis bahia</u>	> 100
<u>Menidia menidia</u>	> 100

- b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species) @ 96 hrs.

<u>Acartia tonsa</u>	64
<u>Mysidopsis bahia</u>	94
<u>Menidia menidia</u>	> 100

- c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes sp.</u>	0.0
<u>Mercenaria mercenaria</u>	0.0
<u>Nereis virens</u>	0.0

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: Petrol. Hydro. were statistically significant in Palaemonetes sp. (1.49 ppm), Mercenaria sp. (0.27 ppm), Nereis sp. (4.63 ppm). PCB's were statistically significant in Nereis sp. (0.24 ppm).

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:
Division North Atlantic District New York
2. Permit start date/expire date:
Permittee: Getty Refining & Marketing Co.
Date issued: 12 Sept 83 Permit No. 13013
Start Date: 12 Sept 83 Expiry Date 12 Sept 86
3. Country of origin of wastes and port of loading:
a. United States of America
b. Passaic River, New Jersey
4. Specification of dredged material and process from which derived:
a. Description: silty clay
b. Mode of dredging: clamshell dredge; Weeks Dredging Co.
c. Mode of transportation: towed barge; 4,000 cy capacity
5. Form in which dredged material is presented for disposal: slurry-noncohesive character.
6. Total quantity (cubic meters): 23,100 cy = 17,700 m³
7. Expected frequency of dumping (for reporting period):
a. 2 trips/day
b. Actual start: 4 Oct 83 Actual completion: 6 Oct 83

8. Chemical composition:

	<u>Site Water (S.D.)</u>	<u>#lutriate (S.D.)</u>
Petrol. Hydro.	< 50.0	< 50.0 (-)
PCB	< 0.1	< 0.1 (-)
Hg	< 0.2	< 0.2 (-)
Cd	< 0.1	< 0.1 (-)
9. Properties of dredged material:
 - a. Solubility (% ater) 9
 - b. Density (gm/cc) Not Available
 - c. pH Not Available
 - d. % sand 11.5 % silt 61.7 % clay 26.8
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors.
12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.
13. Approved dumping site:
 - a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
 - b. Depth of water (meters): 20 m.
 - c. Distance from nearest coast (kilometers): 9 Km.
14. Additional information: See attached.

Bioassays and Bioassessment Evaluations

- a.
- Liquid Phase Bioassay
- (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	10%
<u>Mysidopsis bahia</u>	48%
<u>Menidia menidia</u>	75%

- b.
- Suspended Particulate Phase Bioassay
- (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	86%
<u>Mysidopsis bahia</u>	25%
<u>Menidia menidia</u>	> 100%

- c.
- Solid Phase Bioassay
- (% mortality difference with respect to control)

<u>Palaemonetes</u> sp.	1.0	Negative indicates greater mortality in control.
<u>Mercenaria mercenaria</u>	1.0	
<u>Nereis virens</u>	-1.0	

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data:

Petrol. Hydro. were statistically significant in Palaemonetes sp. (0.31 ppm), Mercenaria sp. (0.72 ppm) and Nereis sp. (2.24 ppm).

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:
 Division North Atlantic District New York
2. Permit start date/expire date:
 Permittee: Amoco Oil Co.
 Date issued: 13 Oct 83 Permit No. 13036
 Start Date: 13 Oct 83 Expiry Date 13 Oct 86
3. Country of origin of wastes and port of loading:
 - a. United States of America
 - b. Arthur Kill, New Jersey
4. Specification of dredged material and process from which derived:
 - a. Description: silty clay
 - b. Mode of dredging: clamshell dredge; Weeks Dredging Co.
 - c. Mode of transportation: towed barge; 4,000 cy capacity
5. Form in which dredged material is presented for disposal: slurry-noncohesive character.
6. Total quantity (cubic meters): 18,000 cy = 13,800 m³
7. Expected frequency of dumping (for reporting period):
 - a. 1 trip/day
 - b. Actual start: 17 Oct 83
 - c. Actual completion: 21 Oct 83

8. Chemical composition: Site Water (S.D.) Elutriate (S.D.)
 in ppb
- | | | |
|----------------|------------|------------|
| Petrol. Hydro. | < 50.0 (-) | < 50.0 (-) |
| PCB | < 0.1 (-) | < 0.1 (-) |
| Hg | < 0.2 (-) | < 0.2 (-) |
| Cd | < 0.1 (-) | < 0.1 (-) |
9. Properties of dredged material:
- Solubility (% water) 65.5
 - Density (gm/cc) Not Available
 - pH Not Available
 - % sand 30.7 % silt 26.0 % clay 43.3
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors.
12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.
13. Approved dumping site:
- Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
 - Depth of water (meters): 20 m.
 - Distance from nearest coast (kilometers): 9 Km.
14. Additional information: See attached.

Bioassays and Bioassessment Evaluations

- a. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	22%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

- b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	68%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

- c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes sp.</u>	0.0
<u>Mercenaria mercenaria</u>	2.0
<u>Nereis virens</u>	0.0

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data:

Petrol. Hydro. were statistically significant in Palaemonetes sp. (1.05 ppm) and Nereis sp. (0.41 ppm).

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division North AtlanticDistrict New York

2. Permit start date/expire date:

Permittee: Coastal Dry Dock and Repair Co. - Pier G

Date issued: 17 Jun 81

Permit No. 11969*

Start Date: 17 Jun 81

Expiry Date 17 Jun 84

3. Country of origin of wastes and port of loading:

a. United States of America

b. East River, New York

4. Specification of dredged material and process from which derived:

a. Description: silt

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 4,000 cy capacity

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 108,000 cy = 82,600 m³*

*Note: The volume shown for this area is the total volume dredged from all areas under this permit number. The work under this permit is divided into 3 areas, each of which is represented by separate testing and is shown in a separate London Dumping Convention Report.

7. Expected frequency of dumping (for reporting period):

a. 4 trips/day

b. Actual start: 3 Nov 83

Actual completion: 15 Dec 83

8. Chemical composition: Site Water (S.D.) Elutriate (S.D.)
in ppb

DDT	< 0.05	< 0.05 (-)
PCB	< 0.1	0.15 (0.03)*
Hg	0.37 (0.06)	0.2 (0)
Cd	7.80 (0.39)	3.17 (0.29)

(* statistical significance - 95% level)

9. Properties of dredged material:

a. Solubility (% water)	56.
b. Density (gm/cc)	Not Available
c. pH	Not Available
d. % sand 5.3	% silt 68.5 % clay 27.2

10. Method of packing: None

11. Method of release: Immediate release from bottom opening doors.

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.

13. Approved dumping site:

a. <u>Geographical position (latitude and longitude):</u>	40° 22'N; 73° 51'W
b. <u>Depth of water (meters):</u>	20 m.
c. <u>Distance from nearest coast (kilometers):</u>	9 Km.

14. Additional information: See attached.

Bioassays and Bioassessment Evaluations

- a. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	68%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

- b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species)@ 96 hrs.

<u>Libinia tona</u>	40%
<u>Mysidopsis bahia</u>	68%
<u>Menidia menidia</u>	> 100%

- c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes</u> sp.	2.0
<u>Mercenaria mercenaria</u>	1.0
<u>Nereis virens</u>	1.0

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data:

Petrol. Hydro were statistically significant in Palaemonetes sp. (12.77 ppm), Merenaria sp. (1.49 ppm) and Nereis sp. (30.35 ppm).

PCB's were statistically significant in Nereis sp. (0.39 ppm).

LONDON DUMPING CONVENTION

Report of Ocean Dumping Units - CY 83

1. Issuing Authority:

Division North AtlanticDistrict New York

2. Permit start date/expire date:

Permittee: Coastal Dry Dock and Repair Co. - Pier J

Date issued: 17 Jun 81

Permit No. 11969*

Start Date: 17 Jun 81

Expiry Date 17 Jun 84

3. Country of origin of wastes and port of loading:

a. United States of America

b. East River, New York

4. Specification of dredged material and process from which derived:

a. Description: silt

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 4,000 cy capacity

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 108,000 cy = 82,600 m³

* Note: The volume shown for this area is the total volume dredged from all areas under this permit number. The work under this permit is divided into 3 areas, each of which is represented by separate testing and is shown in a separate London dumping Convention Report.

7. Expected frequency of dumping (for reporting period):

a. 4 trips/day

b. Actual start: 3 Nov 83

c. Actual completion: 15 Dec 83

8. Chemical composition: in ppb	<u>Site Water (S.D.)</u>	<u>Elutriate (S.D.)</u>
DDT	< 0.05 (-)	< 0.05 (-)
PCB	0.14 (0.02)	0.18 (0.02)
Hg	0.43 (0.06)	0.3 (0.0)
Cd	7.80 (0.17)	2.73 (0.06)

9. Properties of dredged material:

- a. Solubility (% water) 61.0
- b. Density (gm/cc) Not Available
- c. pH Not Available
- d. % sand 9.0 % silt 62.0 % clay 29.0

10. Method of packing: None

11. Method of release: Immediate release from bottom opening doors.

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.

13. Approved dumping site:

- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
- b. Depth of water (meters): 20 m.
- c. Distance from nearest coast (kilometers): 9 Km.

14. Additional information: See attached.

Bioassays and Bioassessment Evaluations

- a. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	74%
<u>Mysidopsis bahia</u>	70%
<u>Menidia menidia</u>	> 100%

- b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species) @ 96 hrs.

<u>Acartia tonsa</u>	51%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

- c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes</u> sp.	1.0
<u>Mercenaria mercenaria</u>	3.0 *
<u>Nereis virens</u>	0.0

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data:

Petrol Hydro were statistically significant in Palaemonetes sp. (2.51 ppm), Mercenaria sp. (0.39 ppm) and Nereis sp. (11.90 ppm).

PCB's were statistically significant in Nereis sp. (0.18 ppm).

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division North AtlanticDistrict New York

2. Permit start date/expire date:

Permittee: Coastal Dry Dock & Repair Co. - Site D

Date issued: 17 Jun 81

Permit No. 11969*

Start Date: 17 Jun 81

Expiry Date 17 Jun 84

3. Country of origin of wastes and port of loading:

a. United States of America

b. East River, New York

4. Specification of dredged material and process from which derived:

a. Description: silt

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 4,000 cy capacity

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

* Note: The volume shown for this area is the total volume dredged from all areas under this permit number. The work under this permit is divided into 3 areas, each of which is represented by separate testing and is shown in a separate London Dumping Convention Report.

6. Total quantity (cubic meters): 108,000 cy = 82,600 m³*

7. Expected frequency of dumping (for reporting period):

a. 4 trips/day

b. Actual start: 1 Nov 83

Actual completion: 15 Dec 83

8. Chemical composition: Site Water (S.D.) Elutriate (S.D.)
in ppb

Petrol. Hydro. See note at 14.

PCB

Hg

Cd

9. Properties of dredged material:

a. Solubility (% water) See note at 14.

b. Density (gm/cc) Not Available

c. pH Not Available

d. % sand 6.5 % silt 67.2 % clay 26.3

10. Method of packing: None

11. Method of release: Immediate release from bottom opening doors.

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.

13. Approved dumping site:

a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W

b. Depth of water (meters): 20 m.

c. Distance from nearest coast (kilometers): 9 Km.

14. Additional information:

Note: Chemical, bioassay and bioaccumulation testing done for the other areas covered by this permit were used as being representative of this area.

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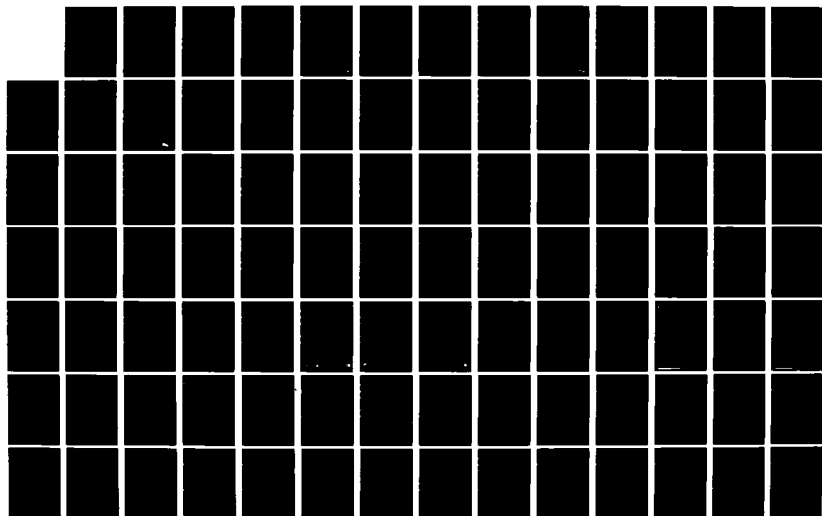
OCEAN DUMPING REPORT FOR CALENDAR YEAR 1983 DREDGED
MATERIAL(U) CORPS OF ENGINEERS FORT BELVOIR VA WATER
RESOURCES SUPPORT CENTER JUL 84 WRSC-83-SR-1

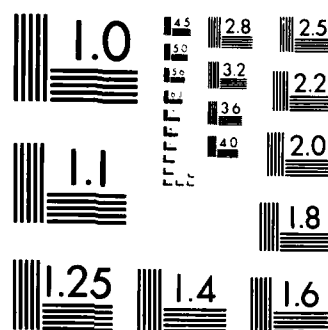
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

LONDON DUMPING CONVENTION
Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division: South AtlanticDistrict: Savannah

2. Permit start date/expire date:

Permittee: Latex Construction CompanyDate Issued: 23 April 1980Permit No.: 074 OYN 004072Start Date: 23 February 1983Expire Date: 28 February 1983

3. Country of origin of wastes and port of loading:

a. United States of America

b. Thunderbolt Marina, Wilmington River, (Atlantic Intracoastal Waterway Mile 5), Chatham County, Georgia.

4. Specification of dredged material and process from which derived:

a. Description: silt.

b. Mode of Dredging: Clam bucket.

c. Mode of Transportation: Bottom dump scow.

5. Form in which dredged material is presented for disposal: Slurry

6. Total quantity (cubic meters): 1,440 CY

7. Expected frequency of dumping (for reporting period):

a. 1 load/day - 4 days total.

b. Actual start: 23 February 1983c. Actual completion: 27 February 1983

8. Chemical composition: N/A

9. Properties of dredged material:

a. Solubility (% water): N/A

b. Density (gm/cc): 1.8 gm/cc

c. pH: N/A

d. % sand N/A % silt N/A % clay N/A

10. Method of packaging: Hydraulic Dredging - Hopper.
11. Method of release: Immediate release from bottom opening doors.
12. Procedure and site for tank washing: At site.
13. Approved dumping site: For Savannah Harbor.
 - a. Geographical position (latitude and longitude): 31°56'54" N
80°45'34" W
 - b. Depth of water (meters): -10.7 to -12.2m (-35 to -40 feet) at mlw.
 - c. Distance from nearest coast (kilometers): 6.9km (3.75 nmi)
14. Additional information: N/A

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division SOUTH ATLANTIC

District JACKSONVILLE

2. Permit start date/expire date:

Permittee: U.S. Navy

Date issued: 8 Feb 74

Permit No. 73B-1538

Start Date: 8 Feb 74

Expiry Date: 31 Dec 83

3. Country of origin of wastes and port of loading:

a. United States of America

b. Mayport, FL

4. Specification of dredged material and process from which derived:

a. Description: Gray and black organic, silty and clay sizes

b. Mode of dredging: Hopper Dredge - Suction

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Slurry, non-cohesive

6. Total quantity (cubic meters): 84,528.8

7. Expected frequency of dumping (for reporting period):

a. Daily

b. Actual start: 12 Aug 83

c. Actual completion: 19 Aug 83

8. Chemical composition:

See attached

9. Properties of dredged material:

a. Solubility (% water) Not available

b. Density (gm/cc) . 2600 (Absolute)

c. pH Not available

d. % sand _____ % silt _____ % clay _____

Not available

10. Method of packaging: Not applicable

11. Method of release: Bottom Dump

12. Procedure and site for tank washing: Hoppers flushed at disposal site

13. Approved dumping site:



a. Geographical position (latitude and longitude): _____

30°21'30", 81°17'26", 30°20'30", 81°17'26"
30°20'30", 81°18'34", 30°21'30", 81°18'34"

b. Depth of water (meters): _____ 15 _____

c. Distance from nearest coast (kilometers): _____ 9 _____

14. Additional information:

U. S. ARMY ENGINEER DIVISION LABORATORY, SOUTH ATLANTIC CORPS OF ENGINEERS MARIETTA, GEORGIA		DISTRICT Jacksonville		
		PROJECT Mayport Turning Basin		
		CONTRACT NO. --		
GENERAL TEST REPORT (SEDIMENT)		DATE REPORTED 7 March 1977		
		WORK ORDER NO. 0374		
DESCRIPTION Sediment Samples		REQ. NO. 123-ENR-55-7 Ref. Reqn. ED-77-36		
SOURCE		BASE UNIT COST --		
FOR USE AS:		DATE SAMPLE RECEIVED 28 January 1977		
TESTED FOR: Chemical Analysis (See below)		LAB NO. See below		
<div><div> <input type="checkbox"/> MEETS SPECIFICATIONS</div><div>N/A</div><div> <input type="checkbox"/> FAILS SPECIFICATIONS (See below)</div></div>				
Lab. No.	3S 308	3S 309	3S 310	3S 311
Field Sample No.	Mayport 1	Mayport 2	Mayport 3	Mayport
Date	1-17-77	1-17-77	1-17-77	1-17-77
Volatile Solids	8.14	17.17	13.52	0.37
T.V.S. Formula EC	8.45	16.84	14.60	1.44
Total Organic Carbon	1.24	3.00	2.62	< 0.10
C.O.D.	7.28	15.84	13.55	0.12
Nitrogen, Kjeldahl	0.212	0.578	0.318	0.014
Ammonia Nitrogen as NH ₃	0.008	0.022	0.020	0.002
Nitrite Nitrogen as NO ₂	0.000014	0.000022	0.000022	0.000005
Nitrate Nitrogen as NO ₃	0.00012	0.00041	0.00036	0.00012
Oil and Grease	0.20	0.36	0.64	0.06
Lead	0.0014	0.0026	0.0070	0.0004
Zinc	0.0030	0.0052	0.0152	0.0003
Mercury	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Soluble Phosphorus as PO ₄	0.0010	0.0023	0.0030	0.0002
Total Phosphorus as PO ₄	0.274	0.358	0.275	0.114
Iron	1.2	2.0	1.9	0.042
Cadmium	0.00008	0.00010	0.00016	0.00006
Arsenic	0.00038	0.00080	0.00040	0.00006
Chromium	0.0020	0.0025	0.0045	< 0.0005
Nickel	0.0012	0.0019	0.0019	< 0.0005
Copper	0.00065	0.00092	0.00360	0.00032
Beryllium	0.00007	0.00011	0.00010	< 0.00005
Selenium	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Vanadium	0.0029	0.0039	0.0036	< 0.0005
REMARKS:				
REPORTED BY: <input type="checkbox"/> PHONE <input type="checkbox"/> WIRE		TESTED BY JL, JH	CHECKED BY DW	
DATE _____		SAMPLED BY _____		

J. D. HUNT

Description: Sediment Samples

Tested For: Chemical Analysis (See below)

Date Received: 29 Sept. 1977

Date Tested: 10 thru 25 October 1977

Date Reported: 4 November 1977

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH CUBB DR., HARRISBURG, PA. 17101

Location: Jacksonville
Project: Mayport Turning Basin
Reqn No. 05-120-S-G-35-77
Work Order No. 0374
Ref. Reqn ED-77-36

PERCENT BY WEIGHT (DRY BASIS)

Lab. No.	35-993	35-994	35-995	35-996
Field Sample No.	1	2	3	4
Time	0924	0930	0940	0900
Date	9-27-77	9-27-77	9-27-77	9-27-77
Volatiles Solids	6.22	17.30	9.61	6.65
T.V.S. Formula EC	5.71	14.71	9.35	6.25
Total Organic Carbon	2.29	3.84	2.11	1.23
C.O.D.	5.50	13.66	8.20	3.54
Nitrogen, Kjeldahl	0.130	0.435	0.205	0.104
Ammonia Nitrogen as NH ₃	0.0130	0.0436	0.0258	0.0147
Nitrite Nitrogen as NO ₂	0.000010	0.000024	0.000013	0.000009
Nitrate Nitrogen as NO ₃	0.00002	0.00006	0.00008	0.00002
Oil and Grease	0.06	0.21	0.09	0.04
Lead	0.00061	0.00201	0.00201	0.00361
Zinc	0.0032	0.0088	0.0078	0.0026
Mercury	<0.00002	<0.00002	<0.00002	<0.00002
Soluble Phosphorus as PO ₄	0.00103	0.00962	0.00217	0.00219
Total Phosphorus as PO ₄	0.423	0.117	0.459	0.314
Iron	9.5	1.9	1.9	0.74
Cadmium	<0.00005	<0.00005	<0.00005	<0.00005
Arsenic	0.00026	0.00100	0.00070	0.00016
Chromium	0.00215	0.00315	0.00115	0.00165
Nickel	0.0007	0.0010	0.0012	0.0006
Copper	0.00050	0.00280	0.00190	0.00110
Selenium	0.00007	0.00015	0.00013	0.00005
Selenium	<0.00005	<0.00005	<0.00005	<0.00005
Vanadium	0.0011	0.0010	0.0015	0.0010

95

Tested By: JH, RM
Checked By: PL

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LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division SOUTH ATLANTIC

District JACKSONVILLE

2. Permit start date/expire date:

Permittee: U.S. Navy

Date issued: 8 Feb 74

Permit No. 73B-1538

Start Date: 8 Feb 74

Expiry Date: 31 Dec 83

3. Country of origin of wastes and port of loading:

a. United States of America

b. Mayport, FL

4. Specification of dredged material and process from which derived:

a. Description: Gray and black organic, silty and clay sizes

b. Mode of dredging: Hopper Dredge - Suction

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Slurry, non-cohesive

6. Total quantity (cubic meters): 49,797.6

7. Expected frequency of dumping (for reporting period):

a. Daily

b. Actual start: 11 Nov 83

c. Actual completion: 16 Nov 83

8. Chemical composition:

See attached

9. Properties of dredged material:

a. Solubility (% water) Not available

b. Density (gm/cc) 2600 (Absolute)

c. pH Not available

d. % sand _____ % silt _____ % clay _____

Not available

10. Method of packaging: Not applicable

11. Method of release: Bottom Dump

12. Procedure and site for tank washing: Hoppers flushed at disposal site

13. Approved dumping site:

a. Geographical position (latitude and longitude): _____

30°21'30", 81°17'26", 30°20'30", 81°17'26"
30°20'30", 81°18'34", 30°21'30", 81°18'34"

b. Depth of water (meters): _____

15

c. Distance from nearest coast (kilometers): _____

9

14. Additional information:

U. S. ARMY ENGINEER DIVISION LABORATORY, SOUTH ATLANTIC
CORPS OF ENGINEERS
MARIETTA, GEORGIA

DISTRICT
Jacksonville

PROJECT
Mayport Turning Bas

CONTRACT NO.
--

DATE REPORTED
7 March 1977

WORK ORDER NO.
0374

GENERAL TEST REPORT

(SEDIMENT)

DESCRIPTION
Sediment Samples

REQ. NO. 123-LR-35-

Ref. Recn. ED-77-36

SOURCE

BASE UNIT COST

--

FOR USE AS:

DATE SAMPLE RECEIVED
28 January 1977

TESTED FOR:
Chemical Analysis (See below)

LAB NO.
See below



MEETS
SPECIFICATIONS

N/A



FAILS
SPECIFICATIONS (See below)

Lab. No.	3S 308	3S 309	3S 310	3S 311
Field Sample No.	Mayport 1	Mayport 2	Mayport 3	Maypor
Date	1-17-77	1-17-77	1-17-77	1-17-7
Volatile Solids	8.14	17.17	13.52	0.37
T.V.S. Formula EC	8.45	16.84	14.60	1.44
Total Organic Carbon	1.24	3.00	2.62	< 0.10
C.O.D.	7.28	15.84	13.55	0.12
Nitrogen, Kjeldahl	0.212	0.578	0.318	0.014
Ammonia Nitrogen as NH ₃	0.008	0.022	0.020	0.002
Nitrite Nitrogen as NO ₂	0.000014	0.000022	0.000022	0.0000:
Nitrate Nitrogen as NO ₃	0.00012	0.00041	0.00036	0.0001:
Oil and Grease	0.20	0.36	0.64	0.06
Lead	0.0014	0.0026	0.0070	0.0004
Zinc	0.0030	0.0052	0.0152	0.0003
Mercury	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Soluble Phosphorus as PO ₄	0.0010	0.0023	0.0030	0.0002
Total Phosphorus as PO ₄	0.274	0.358	0.275	0.114
Iron	1.2	2.0	1.9	0.042
Cadmium	0.00008	0.00010	0.00016	0.00006
Arsenic	0.00038	0.00080	0.00040	0.00006
Chromium	0.0020	0.0025	0.0045	< 0.0005
Nickel	0.0012	0.0019	0.0019	< 0.0005
Copper	0.00065	0.00092	0.00360	0.00032
Beryllium	0.00007	0.00011	0.00010	< 0.00005
Selenium	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Vanadium	0.0029	0.0039	0.0036	< 0.0005

REMARKS:

REPORTED BY: C PHONE GWIRE

DATE

TESTED BY
JL, JN

CHECKED BY
DW

SAMPLED BY

J. B. BENT

Description: Sediment Samples

Tested for: Chemical Analysis (See below)

Date Received: 29 Sept. 1977

Date Tested: 10 thru 25 October 1977

Date Reported: 4 November 1977

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH CUSB DR., MARINETTA, CA. 90061

Project: Mayport Turning Basin
Reqn No. 03-120-S-G-35-77
Work Order No. 0374
Ref. Reqn ED-77-36

PERCENT BY WEIGHT (DRY BASIS)

Lab. No.	35-993	35-994	35-995	35-996
Field Sample No.	1	2	3	4
Date	0924	0930	0940	0900
Volatiles Solids	9-27-77	9-27-77	9-27-77	9-27-77
T.V.S. Formula EC	6.22	17.30	9.61	4.55
Total Organic Carbon	5.71	14.71	9.35	1.33
C.F.D.	2.29	3.84	2.11	3.54
Nitrogen, Kjeldahl	5.50	13.66	8.20	0.104
Ammonia Nitrogen as NH ₃	0.130	0.435	0.205	0.0147
Nitrate Nitrogen as NO ₃	0.0130	0.0456	0.0258	0.000009
Nitrate Nitrogen as NO ₃	0.000010	0.000024	0.000013	0.000002
Oil and Grease	0.00002	0.00006	0.00008	0.04
Lead	0.00	0.21	0.09	0.00061
Zinc	0.00061	0.00201	0.00201	0.0026
Mercury	0.0032	0.0048	0.0078	<0.00002
Soluble Phosphorus as PO ₄	<0.00002	<0.00002	<0.00002	0.00219
Total Phosphorus as PO ₄	0.00103	0.00362	0.00217	0.34
Iron	0.423	0.117	0.459	0.74
Cadmium	9.5	1.9	1.9	<0.00005
Arsenic	<0.00005	<0.00005	<0.00005	0.00016
Chromium	0.00026	0.00100	0.00070	0.00165
Nickel	0.00215	0.00315	0.00415	0.0006
Copper	0.0007	0.0010	0.0012	0.00110
Beryllium	0.00050	0.00280	0.00190	0.00005
Selenium	0.00007	0.00015	0.00013	<0.00005
Vanadium	<0.00005	<0.00005	<0.00005	0.0010
	0.0011	0.0010	0.0015	

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LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division SOUTH ATLANTIC

District JACKSONVILLE

2. Permit start date/expire date:

Permittee: JACKSONVILLE SHIPYARDS, INC.

Date issued: 14 August 1980

Permit No. 80H-1161

Start Date: 14 August 1980

Expiry Date: 14 August 1986

3. Country of origin of wastes and port of loading:

a. United States of America

b. East Bay Terminal, St. John's River, Jacksonville, Florida

4. Specification of dredged material and process from which dredged:

a. Description: River Silt

b. Mode of dredging: Bucket

c. Mode of transportation: Bottom Dump Barge

5. Form in which dredged material is presented for disposal:

Material as dredged, not treated

6. Total quantity (cubic meters): 110,102 m³ (144,000 cy)

7. Expected frequency of dumping (for reporting period):

a. twice annually

b. Actual start: Jan 83

c. Actual completion: Dec 83

Jan-June 83

and Dec 1-Dec 30 83

8. Chemical composition:

SEE ATTACHED

9. Properties of dredged material:

a. Solubility (% water) Not applicable

b. Density (gm/cc) .

c. pH

d. % sand _____ % silt _____ % clay _____

10. Method of packaging: not applicable

11. Method of release: Bo-tom dump barge

12. Procedure and site for tank washing:

13. Approved dumping site: Off Jacksonville Harbor

a. Geographical position (latitude and longitude): 30 21 45 N

81 18 00 W

b. Depth of water (meters): 16 meters

c. Distance from nearest coast (kilometers): 4.2 nautical miles

14. Additional information:

TABLE 34. Results of chemical analyses of sediments collected from the proximity of an Atlantic Ocean disposal site (reference site) and dredged material collected from three stations of Jacksonville Shipyard, Jacksonville, FL.

Chemical constituent	Concentration; mg/l (ppm)			
	Reference site sediment	Station 1	Station 2	Station 3
Cadmium	<0.56	1.2	1.8	2.0
Lead	<0.01	0.16	0.33	1.3
Mercury	0.06	0.33	0.22	0.15
Zinc	<4.8	710	1,600	6,100
Petroleum hydrocarbons:				
Fraction 1, aliphatics	<0.2	<0.4	11.0	<0.4
Fraction 2, aromatics	<0.3	<1.2	<1.1	<0.8
Polychlorinated biphenyls (as Aroclor® 1254)	<0.05	<0.05	<0.05	1.7
Pesticides:				
Aldrin	<0.05	<0.05	<0.05	<0.05
Lindane	<0.05	<0.05	<0.05	<0.05
Heptachlor	<0.05	<0.05	<0.05	<0.05
p,p'DDD	<0.05	<0.05	<0.05	<0.05
o,p'DDE	<0.05	<0.05	<0.05	<0.05
p,p'DDT	<0.05	<0.05	<0.05	<0.05
Chlordane	<0.05	<0.05	<0.05	<0.05
Dieldrin	<0.05	<0.05	<0.05	<0.05
Endrin	<0.05	<0.05	<0.05	<0.05
Toxaphene	<0.05	<0.05	<0.05	<0.05
Mirex	<0.05	<0.05	<0.05	<0.05
Methoxychlor	<0.05	<0.05	<0.05	<0.05

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division SOUTH ATLANTICDistrict JACKSONVILLE

2. Permit start date/expire date:

Permittee: Jacksonville Shipyard Inc.Date issued: 14 August 1980Permit No. 80H-1162Start Date: 14 August 1980Expiry Date: 14 August 1986

3. Country of origin of wastes and port of loading:

a. United States of Americab. Bellinger Shipyards, Atlantic Intercoastal Waterway, Jacksonville, Florida

4. Specification of dredged material and process from which derived:

a. Description: Siltb. Mode of dredging: Bucketc. Mode of transportation: Bottom Dump Barge5. Form in which dredged material is presented for disposal: As dredged6. Total quantity (cubic meters): 7646 m³ (10,000 cy)

7. Expected frequency of dumping (for reporting period):

a. one time annuallyb. Actual start: August 1983c. Actual completion: August 1983

8. Chemical composition:

9. Properties of dredged material:

NOT APPLICABLE

a. Solubility (% water)

b. Density (gm/cc)

c. pH

d. % sand _____ % silt _____ % clay _____

10. Method of packaging: NOT APPLICABLE

11. Method of release: BOTTOM DUMP

12. Procedure and site for tank washing:

13. Approved dumping site: OFF JACKSONVILLE HARBOR

a. Geographical position (latitude and longitude): 30 21 45 N

81 18 00 W

b. Depth of water (meters):

16 meters

c. Distance from nearest coast (kilometers):

4.2 nautical miles

14. Additional information:

TABLE 34. Results of chemical analyses of sediments collected from the proximity of an Atlantic Ocean disposal site (reference site) and dredged material collected from three stations of Jacksonville Shipyard, Jacksonville, FL.

Chemical constituent	Reference site sediment	Concentration, mg/l (ppm)		
		Dredged material		
		Station 1	Station 2	Station 3
Cadmium	<0.56	1.2	1.8	2.0
Lead	<0.01	0.16	0.33	1.3
Mercury	0.06	0.33	0.22	0.15
Zinc	<4.8	710	1,600	6,100
Petroleum hydrocarbons:				
Fraction 1, aliphatics	<0.2	<0.4	11.0	<0.4
Fraction 2, aromatics	<0.3	<1.2	<1.1	<0.8
Polychlorinated biphenyls (as Aroclor® 1254)	<0.05	<0.05	<0.05	1.7
Pesticides:				
Aldrin	<0.05	<0.05	<0.05	<0.05
Lindane	<0.05	<0.05	<0.05	<0.05
Heptachlor	<0.05	<0.05	<0.05	<0.05
p,p'DDD	<0.05	<0.05	<0.05	<0.05
o,p'DDE	<0.05	<0.05	<0.05	<0.05
p,p'DDT	<0.05	<0.05	<0.05	<0.05
Chlordane	<0.05	<0.05	<0.05	<0.05
Dieldrin	<0.05	<0.05	<0.05	<0.05
Endrin	<0.05	<0.05	<0.05	<0.05
Toxaphene	<0.05	<0.05	<0.05	<0.05
Mirex	<0.05	<0.05	<0.05	<0.05
Methoxychlor	<0.05	<0.05	<0.05	<0.05

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division South Pacific District Los Angeles

2. Permit start date/expire date:

Permittee: Atkinson Marine Corporation

Date issued: 19 May 1983 Permit No. 82-88-RA

Start Date: 19 May 1983 Expiry Date: 19 May 1986

3. Country of origin of wastes and port of loading:

- a. United States of America
- b. San Diego Harbor, California

4. Specification of dredged material and process from which derived:

- a. Description: Silt, Sand
- b. Mode of dredging: Clamshell
- c. Mode of transportation: Barge

5. Form in which dredged material is presented for disposal: Slurry

6. Total quantity (cubic meters): 680,000 cubic yards

7. Expected frequency of dumping (for reporting period):

- a. Daily during maintenance dredging
- b. Actual start: _____ Actual completion: _____

8. Chemical composition:

Copper
Lead
Zinc
Cadmium
Silver

9. Properties of dredged material:

- a. Solubility (% water)
- b. Density (gm/cc)
- c. pH
- d. % sand _____ % silt _____ % clay _____

10. Method of packaging:

11. Method of release: Bottom Dumping from Barge

12. Procedure and site for tank washing: Hosing down at approved site

13. Approved dumping site: LA-5

a. Geographical position (latitude and longitude): 32° 36' 50"N, 117° 20' 40"W

b. Depth of water (meters): 100 fathoms

c. Distance from nearest coast (kilometers): 7.7 nautical miles
from shore

14. Additional information:

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division South Pacific District Los Angeles

2. Permit start date/expire date:

Permittee: City of Newport Beach

Date issued: 28 January 1983 Permit No. 82-112-RA

Start Date: 28 January 1983 Expiry Date: 28 January 1986

3. Country of origin of wastes and port of loading:

a. United States of America

b. Newport Harbor, California

4. Specification of dredged material and process from which derived:

a. Description: Silt, Sand

b. Mode of dredging: Suction

c. Mode of transportation: Barge

5. Form in which dredged material is presented for disposal: Slurry

6. Total quantity (cubic meters): 20,000 cubic yards

7. Expected frequency of dumping (for reporting period):

a. Daily during maintenance dredging

b. Actual start: 28 March 1983 Actual completion: _____

8. Chemical composition:

Cadmium
Copper
Mercury

9. Properties of dredged material:

a. Solubility (% water)

b. Density (gm/cc)

c. pH

d. % sand 60 % silt 35 % clay 5

10. Method of packaging:

11. Method of release: Bottom Dumping from Barge

12. Procedure and site for tank washing: Hosing down at approved site

13. Approved dumping site: LA-3

a. Geographical position (latitude and longitude): 33°31'42"N, 117°54'48"W

b. Depth of water (meters): 250 fathoms

c. Distance from nearest coast (kilometers): 4.0 nautical miles
from harbor mouth

14. Additional information:

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division South Pacific District Los Angeles

2. Permit start date/expire date:

Permittee: National Steel and Shipbuilding Company

Date issued: 4 March 1983 Permit No. 82-193-RA

Start Date: 4 March 1983 Expiry Date: 4 March 1986

3. Country of origin of wastes and port of loading:

- a. United States of America
- b. San Diego Harbor, California

4. Specification of dredged material and process from which derived:

- a. Description: Silt, Sand
 - b. Mode of dredging: Clamshell
 - c. Mode of transportation: Barge
5. Form in which dredged material is presented for disposal: Slurry
6. Total quantity (cubic meters): 300,000 cubic yards
7. Expected frequency of dumping (for reporting period):
- a. Daily during maintenance dredging
 - b. Actual start: 4 April 1983 Actual completion: 1 May 1983

8. Chemical composition:

Cadmium
Lead
Chromium
Zinc
Copper
Petroleum hydro-carbons
Mercury

9. Properties of dredged material:

a. Solubility (% water)

b. Density (gm/cc)

c. pH

d. % sand 23 % silt 70 % clay 7

10. Method of packaging:

11. Method of release: Bottom Dumping from Barge

12. Procedure and site for tank washing: Hosing down at approved site

13. Approved dumping site: LA-5

a. Geographical position (latitude and longitude): 32°36'50"N, 117°20'40"W

b. Depth of water (meters): 100 fathoms

c. Distance from nearest coast (kilometers): 7.7 nautical miles
from shore

14. Additional information:

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division South Pacific District Los Angeles

2. Permit start date/expire date:

Permittee: National Steel and Shipbuilding Company

Date issued: 20 April 1983 Permit No. 82-167-RA

Start Date: 20 April 1983 Expiry Date: 20 April 1986

3. Country of origin of wastes and port of loading:

- a. United States of America
- b. San Diego Harbor, California

4. Specification of dredged material and process from which derived:

- a. Description: Silt, Sand
- b. Mode of dredging: Clamshell
- c. Mode of transportation: Barge

5. Form in which dredged material is presented for disposal: Slurry

6. Total quantity (cubic meters): 17,000 cubic yards

7. Expected frequency of dumping (for reporting period):

- a. Daily during maintenance dredging
- b. Actual start: 26 April 1983 Actual completion: 10 Jan 1984

8. Chemical composition:

Cadmium
Mercury
Lead
Chromium
Zinc
Copper
Petroleum hydrocarbons

9. Properties of dredged material:

a. Solubility (% water)

b. Density (gm/cc)

c. pH

d. % sand 12 % silt 76 % clay 12

10. Method of packaging:

11. Method of release: Bottom Dumping from Barge

12. Procedure and site for tank washing: Hosing down at approved site

13. Approved dumping site: LA-5

a. Geographical position (latitude and longitude): 32°36'50"N, 117°20'40"W

b. Depth of water (meters): 100 fathoms

c. Distance from nearest coast (kilometers): 7.7 nautical miles
from shore

14. Additional information:

LONDON DUMPING C ITION

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Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division South Pacific District Los Angeles

2. Permit start date/expire date:

Permittee: U.S. Naval Facilities Engineering Command

Date issued: 10 December 1982 Permit No. 82-139-RA

Start Date: 10 December 1982 Expiry Date: 10 December 1985

3. Country of origin of wastes and port of loading:

- a. United States of America
- b. San Diego Harbor, California

4. Specification of dredged material and process from which derived:

- a. Description: Silt, Sand
- b. Mode of dredging: Clamshell
- c. Mode of transportation: Barge

5. Form in which dredged material is presented for disposal: Slurry

6. Total quantity (cubic meters): 355,000 cubic yards

7. Expected frequency of dumping (for reporting period):

- a. Daily during maintenance dredging
- b. Actual start: 14 May 1983 Actual completion: 5 July 1983

8. Chemical composition:

Cadmium
Chromium
Copper
Mercury

9. Properties of dredged material:

a. Solubility (% water)

b. Density (gm/cc)

c. pH

d. % sand _____ % silt _____ % clay _____

34% Silt/Clay (Sediment type: Fine Sand)

76% Silt/Clay (Sediment type: Sand-Silt-Clay)

10. Method of packaging:

11. Method of release. Bottom Dumping from Barge

12. Procedure and site for tank washing: Hosing down at approved site

13. Approved dumping site: LA-5

a. Geographical position (latitude and longitude): 32° 06' 50" N, 117° 20' 40" W

b. Depth of water (meters): 100 fathoms

c. Distance from nearest coast (kilometers): 7.7 nautical miles
from shore

14. Additional information:

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division South Pacific

District Los Angeles

2. Permit start date/expire date:

Permittee: Southwest Marine, Inc.

Date issued: 20 May 1983

Permit No. 82-197-RA

Start Date: 20 May 1983

Expiry Date: 20 May 1986

3. Country of origin of wastes and port of loading:

a. United States of America

b. San Diego Harbor, California

4. Specification of dredged material and process from which derived:

a. Description: Silt, Sand

b. Mode of dredging: Clamshell

c. Mode of transportation: Barge

5. Form in which dredged material is presented for disposal: Slurry

6. Total quantity (cubic meters): 410,000 cubic yards

7. Expected frequency of dumping (for reporting period):

a. Daily during maintenance dredging

b. Actual start: 24 May 1983

Actual completion: 30 May 1984

8. Chemical composition:

Lead
Copper

9. Properties of dredged material:

a. Solubility (% water)

b. Density (gm/cc)

c. pH

d. % sand 24 % silt 69 % clay 7

10. Method of packaging:

11. Method of release: Bottom Dumping from Barge

12. Procedure and site for tank washing: Hosing down at approved site

13. Approved dumping site: LA-5

a. Geographical position (latitude and longitude): 32°36'50"N, 117°20'40"W

b. Depth of water (meters): 100 fathoms

c. Distance from nearest coast (kilometers): 7.7 nautical miles
from shore

14. Additional information:

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division South Pacific

District Los Angeles

2. Permit start date/expire date:

Permittee: San Diego Unified Port District

Date issued: 26 January 1983

Permit No. 80-253-RA

Start Date: 26 January 1983

Expiry Date: 26 January 1986

3. Country of origin of wastes and port of loading:

a. United States of America

b. San Diego Harbor, California

4. Specification of dredged material and process from which derived:

a. Description: Silt, Sand

b. Mode of dredging: Clamshell

c. Mode of transportation: Barge

5. Form in which dredged material is presented for disposal: Slurry

6. Total quantity (cubic meters): 28,700 cubic yards

7. Expected frequency of dumping (for reporting period):

a. Daily during maintenance dredging

b. Actual start: 22 February 1983 Actual completion: 18 June 1983

3. Chemical composition:

Copper

P-37 pg 2 of 2

9. Properties of dredged material:

a. Solubility (% water)

b. Density (gm/cc)

c. pH

Area	d. % sand	% silt	% clay
Switzer Creek	70	15	15
West Basin	75	10	15
Fifth Ave. Marina	35	35	30

10. Method of packaging:

11. Method of release: Bottom Dumping from Barge

12. Procedure and site for tank washing: Hosing down at approved site

13. Approved dumping site: 1A-5

a. Geographical position (latitude and longitude): 32° 36' 50" N, 117° 20' 40" W

b. Depth of water (meters): 100 fathoms

c. Distance from nearest coast (kilometers): 7.7 nautical miles from shore

14. Additional information:

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division South Pacific

District Los Angeles

2. Permit start date/expire date:

Permittee: San Diego Unified Port District

Date issued: 4 February 1983

Permit No. 81-55-RA

Start Date: 4 February 1983

Expiry Date: 4 February 1986

3. Country of origin of wastes and port of loading:

a. United States of America

b. San Diego Harbor, California

4. Specification of dredged material and process from which derived:

a. Description: Silt, Sand

b. Mode of dredging: Clamshell

c. Mode of transportation: Barge

5. Form in which dredged material is presented for disposal: Slurry

6. Total quantity (cubic meters): 71,140 cubic yards

7. Expected frequency of dumping (for reporting period):

a. Daily during maintenance dredging

b. Actual start: 22 February 1983

Actual completion: 18 June 1983

8. Chemical composition:

Copper

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9. Properties of dredged material:

a. Solubility (% water)

b. Density (gm/cc)

c. pH

area	d. % sand	% silt	% clay
F	10	55	35
G	15	45	40
H	20	45	35

10. Method of packaging:

11. Method of release: Bottom Dumping from Barge

12. Procedure and site for tank washing: Hosing down at approved site

13. Approved dumping site: LA-5

a. Geographical position (latitude and longitude): 32°36'50"N, 117°20'40" W

b. Depth of water (meters):

100 fathoms

c. Distance from nearest coast (kilometers):

7.7 nautical miles
from shore

14. Additional information:

LONDON DUMPING CONVENTION

P-39 Pg 1 of 2

Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division South Pacific District Los Angeles

2. Permit start date/expire date:

Permittee: Port of Los Angeles

Date issued: 27 October 1982 Permit No. 82-111-AA

Start Date: 27 October 1982 Expiry Date: 27 October 1985

3. Country of origin of wastes and port of loading:

a. United States of America

b. Los Angeles Harbor, California

4. Specification of dredged material and process from which derived:

a. Description: Silt, Sand

b. Mode of dredging: Clamshell

c. Mode of transportation: Barge

5. Form in which dredged material is presented for disposal: Slurry

6. Total quantity (cubic meters): 800 cubic yards

7. Expected frequency of dumping (for reporting period):

a. Daily during maintenance dredging

b. Actual start: 24 January 1983 . Actual completion: 28 January 1983

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8. Chemical composition:

Cadmium
Copper
Lead
Mercury

9. Properties of dredged material:

a. Solubility (% water)

b. Density (gm/cc)

c. pH

d. % sand 84 % silt 12 % clay 4

10. Method of packaging:

11. Method of release: Bottom Dumping from Barge

12. Procedure and site for tank washing: Hosing down at approved site

13. Approved dumping site: LA-2

a. Geographical position (latitude and longitude): 33°37'06"N, 118°17'24"W

b. Depth of water (meters): 100 fathoms

c. Distance from nearest coast (kilometers): 5.3 nautical miles
from shore

14. Additional information:

Dredging of Magazine Loch
Pearl Harbor, Hawaii

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division Pacific Ocean District Honolulu

2. Permit start date/expire date:

Permittee: U. S. Navy

Date issued: 15 June 1982 Permit No. PODCO-O 1657-D

Start Date: Expiry Date: 31 Dec 84

3. Country of origin of wastes and port of loading:

a. United States of America

b. Pearl Harbor, Hawaii

4. Specification of dredged material and process from which derived:

a. Description: Silt, Sand, Coral

b. Mode of dredging: Clamshell

c. Mode of transportation: Barge

5. Form in which dredged material is presented for disposal: Crushed

6. Total quantity (cubic meters): 54,620 m³

7. Expected frequency of dumping (for reporting period):

a. 674 m³/day

b. Actual start: Aug 82 Actual completion: May 83

8. Chemical composition: N/A

9. Properties of dredged material:

a. Solubility (% water) 64 percent

b. Density (gm/cc) N/A

c. pH N/A

d. % sand _____ % silt _____ % clay _____

10. Method of packaging: N/A

11. Method of release: Bottom Dump

12. Procedure and site for tank washing:

13. Approved dumping site: Mamala Bay

a. Geographical position (latitude and longitude): 21° 15' 10" N
157° 56' 50" W

b. Depth of water (meters): 100 m

c. Distance from nearest coast (kilometers): 7.4 m

14. Additional information:

An environmental assessment and ecological assessment (bioassay testing) was completed in February 1982 by AECOS, Inc., for the Pacific Division, Naval Facilities Engineering Command. The February 1982 states:

"The proposed action is not anticipated to have a significant environmental impact nor be environmentally controversial. Bioassay testing on test sediment from three sites within the proposed dredged area showed no evidence of toxic effects. Dredging will occur within Pearl Harbor in an area entirely under U. S. Navy control. Environmental conditions in this part of the Harbor are not conducive to high biological productivity or diversity. Disposal will occur at an offshore site designated by EPA."

LONDON DUMPING CONVENTION

C-1 Pg. 1 of 3

Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expire date:

Permittee: Fres. Roads Fed. Project

Date issued: N/A Permit No.

Start Date: N/A Expire Date: April 1983

3. Country of origin of wastes and port of loading:

a. United States of America

b. Boston, Mass.

4. Specification of dredged material and process from which derived:

a. Description: Clayey organic silt.

b. Mode of dredging: Clamshell

c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal:
Saturated cohesive & non-cohesive material

6. Total quantity (cubic meters): 114,750m³

7. Expected frequency of dumping (for reporting period):

a. 2-3 loads per day

b. Actual start: January 1981

c. Actual completion: April 1983

8. Chemical composition:

C-1 Pg. 2 of 3

Glutamate

	Sample A	Sample B	Sample C
Nutrients:			
Nitrite Nitrogen ppm	0.005	0.005	0.005
Nitrate Nitrogen ppm	0.02	0.02	0.03
Ammonia Nitrogen ppm	2	5	1.0
Sulfate (SO ₄) ppm	2740	2550	2700
Phosphorous			
Ortho, ppm	0.04	0.42	0.02
total, ppm	0.04	0.44	0.05

Metals:

Mercury ppb	0.9	0.5	0.5
Lead ppb	14	18	15
Zinc ppb	18	57	37
Arsenic ppb	3.8	5.6	1.2
Cadmium ppb	<0.5	<0.5	<2
Chromium ppb	<4	<4	<4
Copper ppb	<2	<2	<2
Nickel ppb	17	13	<8
Silver ppb	<90	<80	<80
Vanadium ppb	<40	<40	<40
Cadmium ionic ppm	3.6	4.7	3.4

Organics:

Oil & Grease	<0.8	<0.8	0.8
Total PCB ppb	0.32	----	----
Total DDT ppb	<0.001	----	----

9. Properties of dredged material:

- Solubility (% water)
- Density (gm/cc)
- pH
- % sand _____ % silt _____ % clay _____

10. Method of packaging:

11. Method of release: Six bottom doors open hydraulically. Material is released intermittently while scow is held at a complete halt.

12. Procedure and site for tank washing: The washing of scow is done either at dredge or disposal site.

13. Approved dumping site:

- a. Geographical position (latitude and longitude):
42° 25.7' N
70° 24.0' W
- b. Depth of Water (meters): 17m
- c. Distance from nearest coast (kilometers): 19.3km

14. Additional information:

Liquid Phase Bioassay: LPC not exceeded

Suspend Particulate Phase Bioassay: LPC not exceeded

Solid Phase Bioassay: LPC not exceeded

Bioaccumulation: No significant effect. Elevated levels of Hg and PHC in mercenaria.

This dumpsite is subject to monitoring studies under the disposal area monitoring system (DAMOS) program. The program is designed to identify and evaluate impacts resulting from the disposal of dredged materials at designated dump sites. The DAMOS program continually contributes to the development of new monitoring methodologies that reflect on the efficiency of field observations and logistics, as well as time.

This program was designated to comply with sections 228.9 and 228.10 of the Ocean Dumping Act relative to dump site monitoring and the evaluation of disposal impacts.

LONDON DUMPING CONVENTION

C-2 Pg. 1 of 3

Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expire date:

Permittee: Weymouth/Braintree

Date issued: N/A Permit No.

Start Date: Expire Date:

3. Country of origin of wastes and port of loading:

a. United States of America

b. Braintree, Mass.

4. Specification of dredged material and process from which derived:

a. Description: Primarily silt

b. Mode of dredging: Clamshell

c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal:
Saturated cohesive & non-cohesive material

6. Total quantity (cubic meters): 1300

7. Expected frequency of dumping (for reporting period):

a. 1 load

b. Actual start: June 1983

c. Actual completion: June 1983

B. Chemical composition:

ELUTRIATE ANALYSIS
Constituent

Nutrients:

Nitrate (N) ng/l	0.024
Nitrate (No) mg/l	0.19
Sulfate (So ₄) mg/l	1450
Phosphorus (P)	
Ortho mg/l	0.135
Total mg/l	0.158

Metals:

Mercury (Hg) ug/l	<0.5
Lead (Pb) ug/l	0.123
Zinc (Zn) mg/l	0.11
Arsenic (As) mg/l	<0.007
Cadmium (Cd) mg/l	<0.001
Chromium (Cr) mg/l	0.035
Copper (Cu) mg/l	0.148
Nickel (Ni) mg/l	0.036
Vanadium (V) mg/l	0.129

Oil & Grease mg/l	6
Total PCB ug/l	33
Total DDT ug/l	<0.1

Bulk Sediment Analysis

Metals

	1	2	3	4	5	6
ppm Mercury	1.1	1.0	1.2	1.3	2.2	1.8
ppm Lead	208.0	51.0	150.0	128.0	129.0	230.0
ppm Zinc	419.0	263.0	304.0	271.0	330.0	336.0
ppm Arsenic	11.0	12.0	11.0	9.0	9.0	10.0
ppm Cadmium	8.8	3.7	4.3	5.6	5.5	7.7
ppm Chromium	92.0	41.0	100.0	99.0	87.0	84.0
ppm Copper	137.0	59.0	144.0	125.0	118.0	166.0
ppm Nickel	73.0	44.0	70.0	73.0	63.0	46.0
ppm Vanadium	260.0	140.0	350.0	210.0	100.0	170.0

Organic

ppm Oil & Grease	4800.0	598.0	4680.0	2800.0	2990.0	5750.0
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7. Properties of dredged material:

C-2 Pg. 3 of 3

- a. Solubility (% water)
- b. Density (gm/cc)
- c. pH
- d. % sand _____ % silt _____ % clay _____

10. Method of packaging:

11. Method of release: Six bottom doors open hydraulically. Material is released intermittently while scow is held at a complete halt.

12. Procedure and site for tank washing: Hopper is rinsed at either the approved dredge or disposal site.

13. Approved dumping site: Foul area

- a. Geographical position (latitude and longitude):

42° 25.7' N
70° 34.0' W

- b. Depth of Water (meters): 77m

- c. Distance from nearest coast (kilometers): 18.3km

14. Additional information: No significant effect indicated by bioassay or bioaccumulation tests.

This dumpsite is subject to monitoring studies under the disposal area monitoring system (DAMOS) program. The program is designed to identify and evaluate impacts resulting from the disposal of dredged materials at designated dump sites. The DAMOS program continually contributes to the development of new monitoring methodologies that reflect on the efficiency of field observations and logistics, as well as time.

This program was designated to comply with sections 228.9 and 228.10 of the Ocean Dumping Act relative to dump site monitoring and the evaluation of disposal impacts.

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division North AtlanticDistrict New York

2. Permit start date/expire date:

Permittee: New York District

Adopted 1933

Date issued: Permit 18 Jun 81

Permit No. Fed Proj #63; NY & NJ Channels

Start Date: 8 Jun 81

Expiry Date: completed

3. Country of origin of wastes and port of loading:

a. United States of America

b. Perth Amboy Anchorage, NJ

4. Specification of dredged material and process from which derived:

a. Description: silty clay

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 4000cy capacity

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 120,900cy = 92,400 m³

7. Expected frequency of dumping (for reporting period):

a. 2 trips/day

b. Actual start: 3 Jan 83

Actual completion: 12 Jan 83

8. Chemical composition:
in ppbSite Water (S.D.)Elutriate (S.D.)

Petrol. Hydro.

< 20.0 (-)

< 200.0 (-)

PCB

< 0.1 (-)

< 0.1 (-)

Hg

< 0.1 (-)

< 0.2 (-)

Cd

< 0.1 (-)

< 0.1 (-)

DDT

< 0.05 (-)

< 0.05 (-)

Pb

< 10.0 (-)

< 10.0 (-)

9. Properties of dredged material:

- a. Solubility (% water) N Available
- b. Density (gm/cc) N Available
- c. pH N Available
- d. % sand 22.8 % silt 38.4 % clay 38.4

10. Method of packing: None

11. Method of release: Immediate release from bottom opening doors.

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.

13. Approved dumping site:

- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
- b. Depth of water (meters): 20 m.
- c. Distance from nearest coast (kilometers): 9 Km.

14. Additional information: See attached.

Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species)@ 96 hrs.

<u>Skeletonema costatum</u>	> 100%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	> 100%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palamonetes</u> sp.	0	
<u>Mercenaria mercenaria</u>	0	negative number indicates
<u>Nereis virens</u>	-4.0	greater mortality in control

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: There was no statistically significant bioaccumulation of contaminants in any of the test species shown for the Solid Phase Bioassay.

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division North Atlantic

District New York

2. Permit start date/expire date:

Permittee: New York District

Adapted 1922
Date issued: Permit - 14 Mar 83

Fed. Proj. #64,
Permit No.: Newark Bay, Hackensack
and Passaic Rivers

Start Date: 14 Mar 83

Expiry Date: Completed

3. Country of origin of wastes and port of loading:

a. United States of America

b. Port Newark Pierhead Channel, NJ

4. Specification of dredged material and process from which derived:

a. Description: silty clay

b. Mode of dredging: clamshell dredge; Weeks Dredging Co.

c. Mode of transportation: towed barge; 4,000 cy capacity

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 468,400cy = 356,100 m³

7. Expected frequency of dumping (for reporting period):

a. 2 trips/day

b. Actual start: 24 May 83

c. Actual completion: 15 Jul 83

8. Chemical composition:
in ppb

Site Water (S.D.)

Elutriate (S.D.)

Petrol. Hydro.

< 50.0 (-)

< 50.0 (-)

PCB

< 0.1 (-)

< 0.1 (-)

Hg

< 0.2 (-)

< 0.2 (-)

Cd

< 0.2 (-)

< 0.2 (-)

9. Properties of dredged material:

- a. Solubility (% water) 31.1
- b. Density (gm/cc) Not Available
- c. pH Not Available
- d. % sand 15.8 % silt 37.6 % clay 42.8

10. Method of packing: None

11. Method of release: Immediate release from bottom opening doors.

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.

13. Approved dumping site:

- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
- b. Depth of water (meters): 20 m.
- c. Distance from nearest coast (kilometers): 9 Km.

14. Additional information: See attached.

NOTE: This project was "capped" with material from the Passaic River Project (see pp. 7-9) and the Red Hook Anchorage Project (see pp. 10-12).

Bioassays and Bioassessment Evaluations

- a.
- Liquid Phase Bioassay
- (EC50 or LC50 for each test species)@ 96 hrs.

<u>Skeletonema costatum</u>	9.6%
<u>Mysidopsis bahia</u>	55.0%
<u>Menidia menidia</u>	47.0%

- b.
- Suspended Particulate Phase Bioassay
- (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	100.0%
<u>Mysidopsis bahia</u>	98.0%
<u>Menidia menidia</u>	> 100.0%

- c.
- Solid Phase Bioassay
- (% mortality difference with respect to control)

<u>Palamonetes</u> sp.	11.3*
<u>Mercenaria mercenaria</u>	0.0
<u>Nereis virens</u>	4.3

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: Petroleum Hydrocarbons were statistically significant in Mercenaria sp. (.695 ppm) and Nereis sp. (.733 ppm).

NOTE: Solid Phase Data is "blocked" data for an original set of testing and a final set which was divided into 3 sections.

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division North AtlanticDistrict New York

2. Permit start date/expire date:

Permittee: New York District

Adopted 1907

Date issued: Permit: 3 Aug 82

Permit No.: Fed. Proj. # 64, Passaic River

Start Date: 3 Aug 82

Expiry Date: Completed

3. Country of origin of wastes and port of loading:

a. United States of America

b. Passaic River, New Jersey

4. Specification of dredged material and process from which derived:

a. Description: silty clay

b. Mode of dredging: clamshell dredge; Weeks Dredging Co.

c. Mode of transportation: towed barge; 4000 cy capacity

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 702,400 cy = 537,100 m³

7. Expected frequency of dumping (for reporting period):

a. 3 trips/day

b. Actual start: 15 Jul 83

c. Actual completion: 14 Oct 83

8. Chemical composition:
in ppbSite Water (S.D.)Elutriate (S.D.)

Pb	10.0	(-)	10.0	(-)
PCB	0.01	(-)	0.01	(-)
Hg	0.2	(-)	0.2	(-)
Cd	0.1	(-)	0.1	(-)
DDT	0.5	(-)	0.05	(-)

9. Properties of dredged material:

- a. Solubility (% water) Not Available
- b. Density (gm/cc) Not Available
- c. pH Not Available
- d. % sand 8.7 % silt 56.3 % clay 35.0

NOTE: Grain size data is from 17 Aug 1978 data.

10. Method of packing: None

11. Method of release: Immediate release from bottom opening doors.

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.

13. Approved dumping site:

- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
- b. Depth of water (meters): 20 m.
- c. Distance from nearest coast (kilometers): 9 Km.

14. Additional information: See attached.

Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species)@ 96 hrs.

<u>Skeletonema costatum</u>	33.0%
<u>Mysidopsis bahia</u>	40.0%
<u>Menidia menidia</u>	52.0%

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	26.0%
<u>Mysidopsis bahia</u>	35.0%
<u>Menidia menidia</u>	28.0%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palamonetes</u> sp.	2.0	Negative Number indicates
<u>Mercenaria mercenaria</u>	0.0	greater mortality in control
<u>Nereis virens</u>	-1.0	

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data:

Petroleum Hydrocarbons were statistically significant in Mercenaria sp. (.65 ppm) and Nereis sp. (.75 ppm).

PCB's were statistically significant in Mercenaria sp. (.11 ppm) and Nereis sp. (.12 ppm).

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division North AtlanticDistrict New York

2. Permit start date/expire date:

Permittee: New York District

Adopted 1965

Date issued: Permit 9 Apr 81

Permit No. Fed. Proj. #62; NY Harbor

Start Date: 9 Apr 81

Expiry Date: Completed

3. Country of origin of wastes and port of loading:

a. United States of America

b. Red Hook Anchorage, NY

4. Specification of dredged material and process from which derived:

a. Description: silty clay

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barges; 4000 & 2000 cy capacity

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 749,000cy = 572,700 m³

7. Expected frequency of dumping (for reporting period):

a. 4 trips/day

b. Actual start: 10 Oct 83

c. Actual completion: 20 Dec 83

8. Chemical composition:
in ppbSite Water (S.D.)Elutriate (S.D.)

Petrol. Hydro.

< 50.0 (-)

< 50.0 (-)

PCB

< 0.1 (-)

< 0.1 (-)

Hg

< 0.2 (-)

< 0.2 (-)

Cd

< 0.1 (-)

< 0.1 (-)

9. Properties of dredged material:

- a. Solubility (% water) 72.0
- b. Density (gm/cc) Not Available
- c. pH Not Available
- d. % sand 56.8 % silt 27.8 % clay 15.4

10. Method of packing: None

11. Method of release: Immediate release from bottom opening doors.

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.

13. Approved dumping site:

- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
- b. Depth of water (meters): 20 m.
- c. Distance from nearest coast (kilometers): 9 Km.

14. Additional information: See attached.

Bioassays and Bioassessment Evaluations

- a. Liquid Phase Bioassay (EC50 or LC50 for each test species)@ 96 hrs.

<u>Skeletonema costatum</u>	100.0%
<u>Mysidopsis bahia</u>	>100.0%
<u>Menidia menidia</u>	90.0%

- b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	71.0%
<u>Mysidopsis bahia</u>	> 100.0%
<u>Menidia menidia</u>	> 100.0%

- c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes sp.</u>	1.0
<u>Mercenaria mercenaria</u>	-1.0 negative number indicates
<u>Nereis virens</u>	-1.0 greater mortality in control.

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: Petro. Hydro. were statistically significant in Mercenaria sp. (.722 ppm) and Nereis sp. (1.721 ppm).

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LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division North Atlantic

District New York

2. Permit start date/expire date:

Permittee: New York District

Adopted 1962
Date issued: Permit- 4 Aug 81

Fed. Proj. #9, Flushing Bay
Permit No: & Creek

Start Date: 4 Aug 81

Expiry Date: Completed in Jan 84

3. Country of origin of wastes and port of loading:

a. United States of America

b. Flushing Bay, NY

4. Specification of dredged material and process from which derived:

a. Description: silty clay

b. Mode of dredging: clamshell dredge; Weeks Dredging Company

c. Mode of transportation: towed barge; 4000cy capacity

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 910,800 \approx 696,400 m³

7. Expected frequency of dumping (for reporting period):

a. 4 trips/day

b. Actual start: 26 Oct 83

c. Actual completion: 28 Dec 83

8. Chemical composition:
in ppb

	<u>Site Water (S.D.)</u>		<u>Elutriate (S.D.)</u>	
Petrol. Hydro.	< 200.0	(-)	< 200.0	(-)
PCB	< 0.1	(-)	< 0.1	(-)
Hg	< 0.1	(-)	< 0.2	(-)
Cd	< 0.1	(-)	< 0.1	(-)
Pb	< 10.0	(-)	< 10.0	(-)
DDT	< 0.05	(-)	< 0.05	(-)

9. Properties of dredged material:
- a. Solubility (% water) 63.3
 - b. Density (gm/cc) Not Available
 - c. pH Not Available
 - d. % sand 7.33 % silt 48.50 % clay 44.17
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors.
12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.
13. Approved dumping site:
- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
 - b. Depth of water (meters): 20 m.
 - c. Distance from nearest coast (kilometers): 9 Km.
14. Additional information: See attached.

Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species)@ 96 hrs.

<u>Skeletonema costatum</u>	> 100.0
<u>Mysidopsis bahia</u>	> 100.0
<u>Menidia menidia</u>	48.0

b. Suspended Particulate Phase Bioassay (EC50 or LC50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	> 100.0
<u>Mysidopsis bahia</u>	> 100.0
<u>Menidia menidia</u>	42.0

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes</u> sp.	1.0	
<u>Mercenaria mercenaria</u>	-1.0	Negative number indicates
<u>Nereis virens</u>	-1.0	greater mortality in control.

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: Petroleum hydrocarbons were statistically significant in Mytilus sp. (4.12 ppm). PCB's were statistically significant in Nereis sp. (0.05 ppm).

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LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division North Atlantic

District Norfolk

2. Permit start date/expire date: NA

Permittee: NA, Federal Project

Date issued: NA

Permit No. NA

Start Date: NA

Expiry Date: NA

3. Country of origin of wastes and port of loading:

a. United States of America

b. Chincoteague, Virginia

4. Specification of dredged material and process from which derived:

a. Description: Clean, medium sand

b. Mode of dredging: Cutter Suction Dredge

c. Mode of transportation: Pipeline

5. Form in which dredged material is presented for disposal: slurry,
12 % sand, 88 % water

6. Total quantity (cubic meters): 50,600

7. Expected frequency of dumping (for reporting period):

a. 14 hours per day

b. Actual start: 7 August

c. Actual completion: 26 September

8. Chemical composition: NA

9. Properties of dredged material:

a. Solubility (% water) NA

b. Density (gm/cc) NA

c. pH NA

d. % sand 99 % silt 1 % clay 0

10. Method of packaging: NA

11. Method of release: NA

12. Procedure and site for tank washing: NA

13. Approved dumping site:

a. Geographical position (latitude and longitude): 37°51'30"N, 75°25'30"W

b. Depth of water (meters): 6

c. Distance from nearest coast kilometers): 1

14. Additional information: NA

WANG 0337r/Fh

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LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division South Atlantic

District Wilmington

2. Permit start date/expire date:

Permittee: Non-Permit Wilmington District

Date issued: _____

Permit No. _____

Start Date: _____

Expiry Date: _____

3. Country of origin of wastes and port of loading:

a. United States of America

b. Morehead City Harbor

4. Specification of dredged material and process from which derived:

a. Description: Sand, water slurry
Maintenance Dredged Material

b. Mode of dredging: Hopper

c. Mode of transportation: Hopper

5. Form in which dredged material is presented for disposal: Slurry

6. Total quantity (cubic meters): 649,094 cu m

7. Expected frequency of dumping (for reporting period):

a. 14 loads per day

b. Actual start: 8 June 1983

c. Actual completion: 30 August 1983

8. Chemical composition:

9. Properties of dredged material:

a. Solubility (% water)

b. Density (gm/cc) ~ 1900

c. pH - Unknown

d. % sand 95 % silt 3 % clay 2

10. Method of packaging:

11. Method of release: Bottom dump hopper dredge

12. Procedure and site for tank washing:

13. Approved dumping site:

a. Geographical position (latitude and longitude):34°37.2'N
76°43.0'Wb. Depth of water (meters):

13 m

c. Distance from nearest coast (kilometers):

4.9 km

14. Additional information:

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division South AtlanticDistrict Wilmington

2. Permit start date/expire date:

Permittee: Non Permit

Date issued: _____

Permit No. _____

Start Date: _____

Expiry Date: _____

3. Country of origin of wastes and port of loading:

a. United States of Americab. Wilmington, NC

4. Specification of dredged material and process from which derived:

a. Description: Sand, silt, clay slurryb. Mode of dredging: Hopper Dredgec. Mode of transportation: Hopper Dredge5. Form in which dredged material is presented for disposal: Slurry6. Total quantity (cubic meters): 779,005 cu m

7. Expected frequency of dumping (for reporting period):

a. 17 loads per day; 16,500 cu m/dayb. Actual start: 8 September 1983 c. Actual completion: 17 October 1984

8. Chemical composition:

9. Properties of dredged material:

- a. Solubility (% water) Unknown
- b. Density (gm/cc) 1500 to 1950
- c. pH - Unknown
- d. % sand 45 % silt 35 % clay 20

10. Method of packaging:

11. Method of release: Bottom dump Hopper Dredge

12. Procedure and site for tank washing:

13. Approved dumping site:

33°48'30"N
78°02'54"Wa. Geographical position (latitude and longitude):b. Depth of water (meters):

13 m

c. Distance from nearest coast (kilometers):

5 km

14. Additional information:

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division SOUTH ATLANTICDistrict CHARLESTON

2. Permit start date/expire date:

Permittee: None required for US Army Corps of EngineersDate issued: N/APermit No. N/AStart Date: N/AExpiry Date: N/A

3. Country of origin of wastes and port of loading:

a. United States of America, South Carolina

b. Charleston, SC

4. Specification of dredged material and process from which derived:

a. Description: Primarily calcium carbonite shell-rich quartz with small amounts of sandy clayey silt poor in calcium carbonate.

b. Mode of dredging: Hopper Dredge

c. Mode of transportation: Hopper Dredge (SUGAR ISLAND)

5. Form in which dredged material is presented for disposal: Slurry, non-cohesive

6. Total quantity (cubic meters): 397092 μ 3

7. Expected frequency of dumping (for reporting period):

a. Average 20 loads daily, seven days per week

b. Actual start: 1 Nov 83c. Actual completion: 14 Dec 83

8. Chemical composition:

See attached, Figure 1, Table A-7, and Table A-8.

9. Properties of dredged material:

a. Solubility (% water) Has not been determined

b. Density (gm/cc) Specific gravity = 1.67

c. pH 7.0 - 7.3

d. % sand _____ % silt _____ % clay _____
(see attached table 86 & Figure 2)

10. Method of packaging: N/A

11. Method of release: Direct release from Hopper into water.

12. Procedure and site for tank washing: N/A

13. Approved dumping site:

a. Geographical position (latitude and longitude): See attached.

b. Depth of water (meters): 9.80 - 1520 Meters

c. Distance from nearest coast (kilometers): 6.95 Kilometers

14. Additional information:

See attached "Summary and Conclusions"

PART I. SUMMARY AND CONCLUSIONS

1. Sediments from four sites (Fig. 1) in the entrance to Charleston Harbor, South Carolina, were bioassayed following Federal guidelines as outlined in the EPA/CE Manual*. All four sediments fully comply with regulations for safe ocean disposal.

2. Suspended particulate and liquid phases meet all bioassay and dilution criteria. No limiting permissible concentration (LPC) would be approached during this disposal.

3. There were no indications of toxicity in any of the solid phase bioassays.

4. Chemical analyses of the liquid phase found no constituents to be greatly elevated over seawater controls, and no LPC would be approached except that for cadmium. Seawater and the liquid phases had the same cadmium content, but the seawater content is fourteen times the limiting permissible concentration. No pesticides or PCB's were detectable in any of the samples.

5. Laboratory experiments found no tendencies for any bioaccumulation of petroleum hydrocarbons, chlorinated hydrocarbons, mercury or cadmium from any of the test sediments.

6. The disposal vessel, traveling at 1.5 m/sec, will require 800 seconds to empty a full capacity load of 1600 m³. The median water depth at the disposal site is 12.5 m (10-15 m). These figures yield a calculated dilution factor of 0.00032 or 0.032% after the four-hour initial mixing period.

*Environmental Protection Agency/Corps of Engineers Technical Committee on Criteria for Dredged and Fill Material, "Ecological Evaluation of Proposed Discharge of Dredged Material into Ocean Waters; Implementation Manual for Section 103 of Public Law 92-532 (Marine Protection, Research, and Sanctuaries Act of 1972)," July 1977, Environmental Effects Laboratory, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.

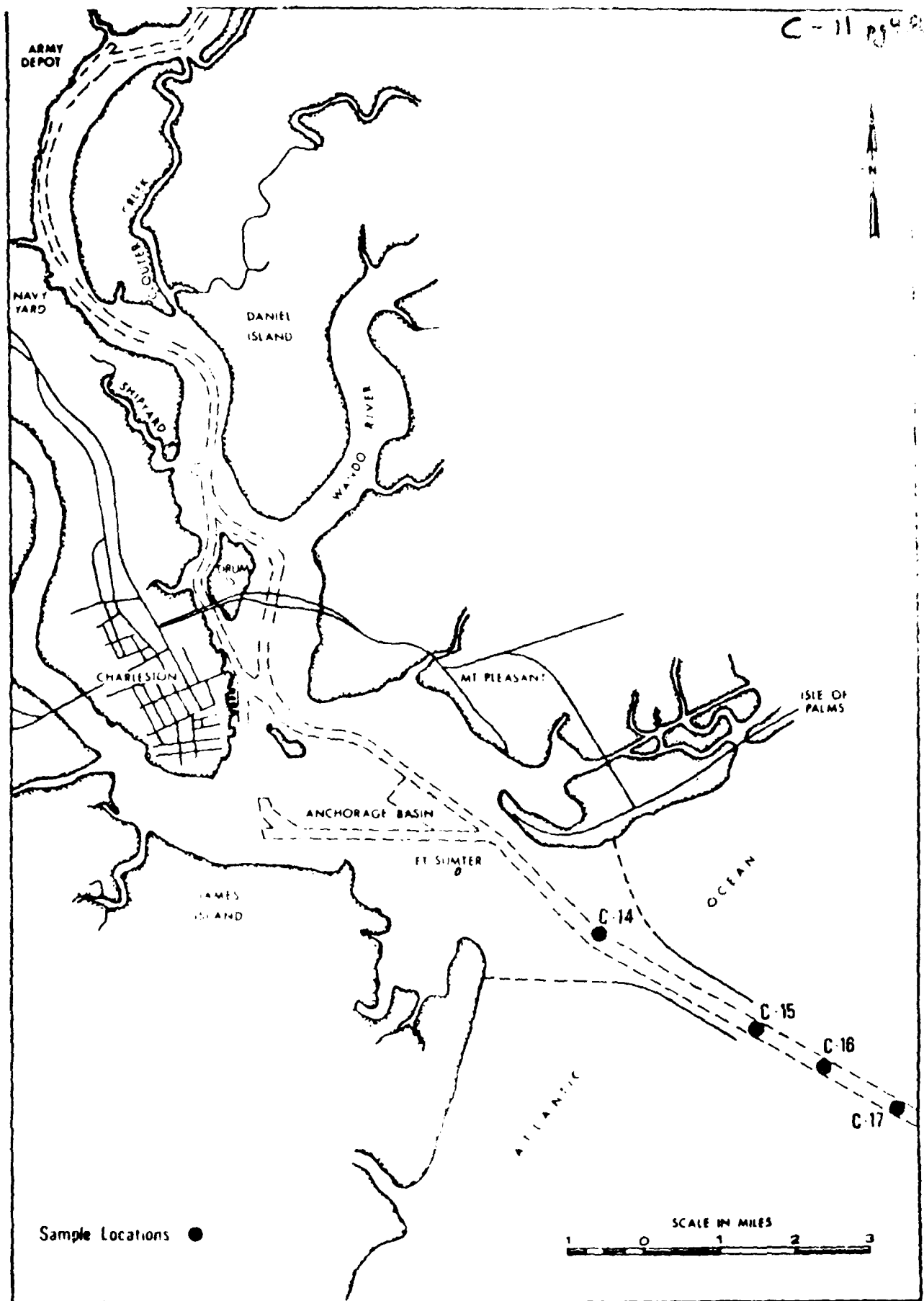


FIGURE 1. Sample locations for sediments used in tests.

Table A-7

Metals and Nutrients Analysis of Liquid Phase Samples
(Values are in milligrams per litre [= ppm] except as noted.)

Constituent	Disposition Site No.	C-14	C-15	C-16	C-17
NO ₂ -N ¹	< 0.01	0.23	< 0.01	0.04	1.1
NO ₃ -N ¹	< .05	< .05	< .05	< .05	< .05
NH ₃ -N ¹	< 0.1	5.6	7.4	4.9	3.4
TKN-N ¹	0.56	6.5	9.6	6.8	4.5
OP-PO ₄ ¹	< 0.2	< 0.2	0.84	< 0.2	0.21
TP-PO ₄ ¹	0.77	0.77	1.4	0.90	1.0
TOC-C ¹	10	7.5	18	12	7.5
Oil and Grease ²	13	14	13	11	69
As ¹	< .03	< .03	0.08	< .03	< .03
Be ¹	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Cd ³	0.07	0.06	0.07	0.07	0.07
Cr ¹	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Cu ⁴	0.09	0.07	0.06	0.07	0.07
Hg ⁵ micrograms per litre	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Ni ⁶	0.42	0.40	0.40	0.40	0.43
Pb ⁶	0.50	0.57	0.52	0.53	0.69
Se ⁶ micrograms per litre	< 2	< 2	< 2	< 2	< 2
Zn ⁶	0.13	0.17	0.15	0.11	0.17

Marine standards suggested by U.S. EPA 1976 Quality Standard for Water (EPA-440/9/76/023) are: ¹none suggested; ²0.01 times the 96 hour LC₅₀ in flowing water bioassays; ³5.0 µg/litre; ⁴0.1 times the 96 hour LC₅₀; ⁵0.10 µg/litre; ⁶0.01 times the 96 hour LC₅₀.

Table
Pesticide and PCB Analysis Liquid Phase Samples

<u>Constituent</u>	<u>Disposal</u>				
	<u>Site Water</u>	<u>C-14</u>	<u>C-15</u>	<u>C-16</u>	<u>C-17</u>
Salinity PPT	29.8	29.9	29.9	30.0	30.8
pH	7.5	7.2	7.2	7.3	7.0

No pesticides or PCB's were detectable in any of the samples. Detection limits in micrograms per litre (= ppb) are:

PCB's (as Arochlor 1254)	< 1
Heptachlor	< .05
DDE	< .05
DDD	< 0.2
DDT	< 0.2
Endrin	< 0.2
Dieldrin	< 0.1
BHC	< .05
Mitrex	< 0.3
Methoxychlor	< 1
Chlordane	< 0.5
Toxaphene	< 5

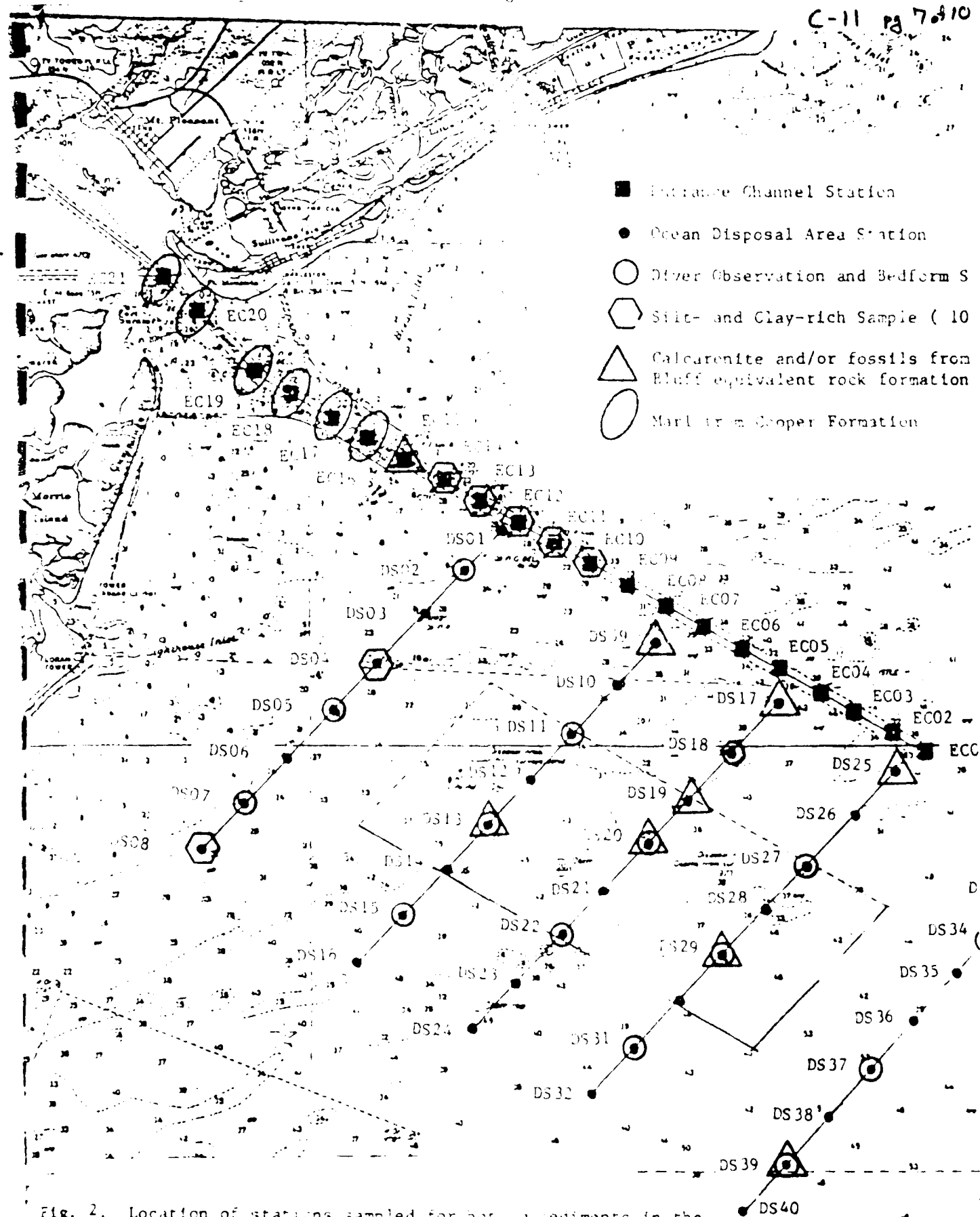


Fig. 2. Location of stations sampled for benthic sediments in the Charleston Entrance Channel and Charleston Harbor Disposal Area.

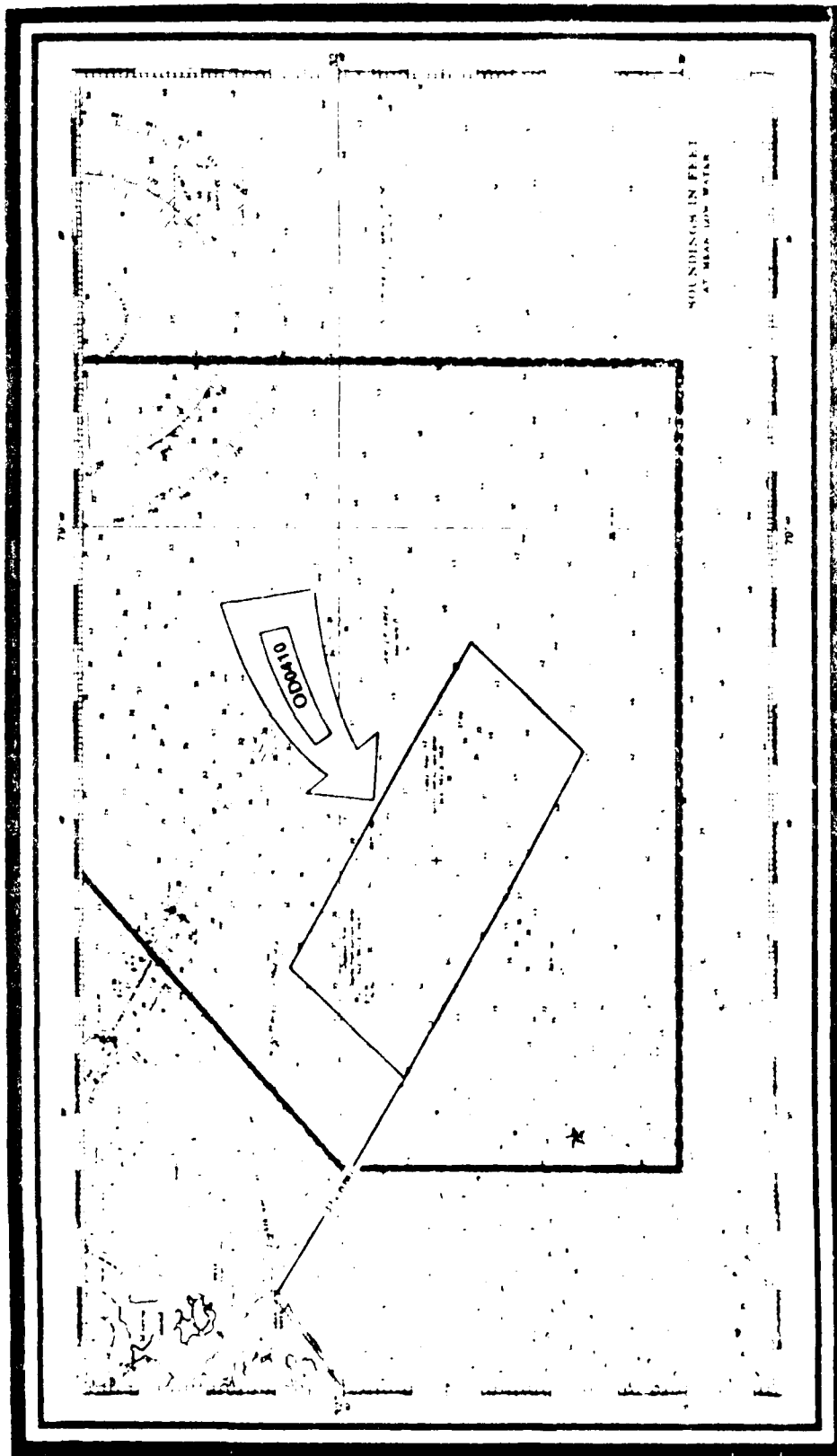
Table 64. Bottom sediment compositions and quartz grain size distributions for Charleston Entrance Channel samples.

STATION	COMPOSITION (weight %)			TOTAL DISTRIBUTION			COMPONENT 1			COMPONENT 2			COMPONENT 3		
	Quartz	CaCO ₃	Shell	Mean ϕ	SD ϕ	Skew ^a	Mean ϕ	SD ϕ	Z of Sample	Mean ϕ	SD ϕ	Z of Sample	Mean ϕ	SD ϕ	Z of Sample
	Sand	Silt	Clay	Rock Frag.	Phosphate										
EC-1	78	22		2.16	.515	-.511	1.880	2.36	.25	592	1.88	.62	412		
EC-2	71	29		2.33	.482	-.560	2.997	2.45	.31	783	1.89	.65	228		
EC-3	75	25		2.16	.677	-.701	2.708	2.42	.36	743	1.43	.80	262		
EC-4	65	35		0.88	1.331	0.037	-0.854	0.50	.49	502	2.59	.35	307	-0.84	.62
EC-5	85	15		2.33	.558	-.694	2.554	2.52	.23	482	2.05	.51	302	2.94	.07
EC-6	87	13		2.53	.464	-.724	3.481	2.60	.15	352	2.90	.10	352	2.20	.40
EC-7	74	26		2.23	1.063	-.729	1.705	2.82	.35	532	1.00	.90	402	2.83	.003
EC-8	64	36		2.46	.814	-1.049	5.233	2.72	.35	452	2.85	.09	312	1.47	1.04
EC-9	90	10		2.68	.433	-.740	6.440	2.64	.44	672	2.81	.11	332		
EC-10	32	20	46	2.98	.478	-1.529	18.219	3.05	.36	682	2.97	.03	322		
EC-11	9	2	74	3.41	.399	-1.566	22.766	3.53	.21	842	2.87	.14	162		
EC-12	5	56	18	3.45	.334	-1.079	13.645	3.54	.20	882	2.85	.11	172		
EC-13	4	52	28	3.36	.403	-1.026	12.420	3.54	.20	812	2.85	.12	192		
EC-14	71	19	13	3.04	.401	-.233	3.555	3.09	.40	832	2.84	.03	172		
EC-15	79	19	1	2.33	.377	-.763	8.309	2.40	.15	532	2.27	.46	472		
EC-16	60	40		2.28	.602	-1.071	10.384	2.39	.33	802	1.90	.94	202		
EC-17	60	38		2.42	.566	-.878	9.012	2.52	.30	752	2.10	.83	252		
EC-18	56	42		2.09	.663	-.380	.941	2.45	.46	502	1.75	.66	507		
EC-19	36	25	39	2.82	.567	-.813	6.027	2.84	.59	682	2.88	.12	372		
EC-20	44	56		2.01	.702	-.520	2.588	1.89	.71	702	2.24	.26	302		
EC-21	33	50	17	2.42	.763	-1.010	9.515	2.53	.72	652	2.38	.16	352		

^a 0.00 skewness is Gaussian; -skewness indicates a coarse tail, skewness a fine tail

^a 0.00 kurtosis is Gaussian

^a anomalously low standard deviation



Navigation Chart No. NOS 11521
Area 12.3 Square Nautical Miles
Local Navigational Aids Loran A & C Omega, RDF, Radar
Material Type Dredged Material

32°38' 06" N, 79°41' 37" W
32°40' 42" N, 79°47' 38" W
32°39' 04" N, 79°49' 21" W
32°36' 18" N, 79°43' 48" W
32°38' 35" N, 79°45' 35" W

Soundings Coordinates

Center Coordinates

OD0410
Charleston Harbor, SC

September 1980

Approved Dumping Site

Geographical Position

Charleston Harbor

Lat. 32°40'42"N Lat. 32°38'06"N
Long 79°47'30"W Long. 79°41'57"W

Lat. 32°39'04"N Lat. 32°36'28"N
Long 79°49'21"W Long. 79°43'48"W

Georgetown Harbor

Lat. 33°11'18"N Lat. 33°11'18"N
Long. 79°07'20"W Long. 79°05'23"W

Lat. 33°10'38"N Lat. 33°10'38"N
Long. 79°07'21"W Long. 79°05'24"W

Port Royal

Lat. 32°10'10"N Lat. 32°08'41"N
Long. 80°36'00"W Long. 80°35'49"W

Lat. 32°10'06"N Lat. 32°08'38"N
Long. 80°36'35"W Long. 80°36'23"W

LONDON DUMPING CONVENTION
Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division: South AtlanticDistrict: Savannah

2. Permit start date/expire date:

Permittee: U.S. Army Engineer District, (Brunswick Harbor), SavannahDate Issued: - Permit No.: (DACW21-83-C-0069)Start Date: - Expire Date: -

3. Country of origin of wastes and port of loading:

a. United States of America

b. Brunswick Harbor

4. Specification of dredged material and process from which derived:

a. Description: sand, predominately.

b. Mode of Dredging: Trailing hopper dredge (authorized Federal navigation channel maintenance).

c. Mode of Transportation: Hooper Dredge "DODGE ISLAND"

5. Form in which dredged material is presented for disposal:

6. Total quantity (cubic meters): 531.781m^3 (695,502 CY)

7. Expected frequency of dumping (for reporting period):

a. 10 loads/day - 7 days/week for 36 days.

b. Actual start: 10 July 1983 c. Actual completion: 14 August 1983

8. Chemical composition: N/A

9. Properties of dredged material:

a. Solubility (% water): N/A

b. Density (gm/cc): 1.8 gm/cc

c. pH: N/A

d. % sand N/A % silt N/A % clay N/A

10. Method of packaging: Hydraulic dredging - hopper.
11. Method of release: Immediate release from bottom opening doors.
12. Procedure and site for tank washing: At site.
13. Approved dumping site: For Brunswick Harbor.
 - a. Geographical position (latitude and longitude): 31°01'33" N
81°17'05" W
 - b. Depth of water (meters): -8.5 to -12/2m (-28 to -40 feet) at mlw.
 - c. Distance from nearest coast (kilometers): 10.65 km (5.75nmi)
14. Additional information: N/A

LONDON DUMPING CONVENTION
Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division: South AtlanticDistrict: Savannah

2. Permit start date/expire date:

Permittee: U.S. Army Engineer District, Savannah

(DACW21-83-C-0006)

Date Issued: - Permit No.: (DACW21-83-C-0091)Start Date: - Expire Date: -

3. Country of origin of wastes and port of loading:

a. United States of America

b. Savannah Harbor

4. Specification of dredged material and process from which derived:

a. Description: sand and silt.

b. Mode of Dredging: Trailing hopper dredge (authorized Federal navigation channel maintenance).

c. Mode of Transportation: Hooper Dredge "DODGE ISLAND"

5. Form in which dredged material is presented for disposal: Slurry and sand

6. Total quantity (cubic meters): 1,096,967m³ (1,434,694 CY)

7. Expected frequency of dumping (for reporting period):

a. 11 labor days - 7 days/week for 17 + 30 days.

b. Actual start: 20 April 1983 c. Actual completion: 6 June 1983d. Actual start: 10 November 1983 e. Actual completion: 9 December 1983

8. Chemical composition: N/A

9. Properties of dredged material:

a. Solubility (% water): N/A

b. Density (gm/cc): N/A

c. pH: N/A

d. % sand 0 % silt 100 % clay 0

10. Method of packaging: Calm bucket dredging.
11. Method of release: Bottom release (bottom dump scou).
12. Procedure and site for tank washing: Sea water pump, at site.
13. Approved dumping site: For Savannah Harbor.
 - a. Geographical position (latitude and longitude): 31°56'54" N
80°45'34" W
 - b. Depth of water (meters): -10.7 to -12.2m (-35 to -40 feet) at mlw.
 - c. Distance from nearest coast (kilometers): 6.9km (3.75 nmi)
14. Additional information: N/A

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division SOUTH ATLANTIC

District JACKSONVILLE

2. Permit start date/expire date:

Permittee: U.S. Army Corps of Engineers

Date issued: November 1984

Permit No. 05-22308

Start Date: 30 Nov 1982

Expiry Date: 1 Feb 1985

3. Country of origin of wastes and port of loading:

a. United States of America

b. Canaveral Harbor, Florida

4. Specification of dredged material and process from which derived:

a. Description: Material is poorly graded sand with a trace of gravel size shell fragments.

b. Mode of dredging: Hopper Dredge - Suction

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Slurry, non-cohesive

6. Total quantity (cubic meters): 165,477

7. Expected frequency of dumping (for reporting period):

a. Daily

b. Actual start: 6 February 1983

c. Actual completion: 28 February 1983

8. Chemical composition:

a. Elutriate test results:

(1) Nutrients:	mg/l	Range
NH4-N-----		0.47 - 4.77
O-P04, P-----		<0.005 - 0.40
(2) Metals:	mg/l	Range
Pb-----		1.1 - 2.8
Zn-----		18 - 77
Fe-----		1.6 - 16

(2) Continued:

NI-----	1.0 - 2
Cu-----	1.2 -
Mn-----	0.5 -
Ag-----	<0.5
Hg-----	<0.5 - 5.0
Se-----	<5

9. Properties of dredged material:

a. Solubility (% water) Not available

b. Density (gm/cc) .2514 (Absolute)

c. pH Not available

d. % sand _____ % silt _____ % clay _____

Not available

(3) Organics: Oil & Grease 0.2
PCB's mg/l - <2

10. Method of packaging: Not applicable

11. Method of release: Bottom dump

12. Procedure and site for tank washing: Hopper flushed at disposal site

13. Approved dumping site:

a. Geographical position (latitude and longitude):

28°19'53", 80°31'08", 28°18'50", 80°29'40"
28°17'35", 80°30'52", 28°18'38", 80°32'20"

b. Depth of water (meters):

12

c. Distance from nearest coast (kilometers):

6.7

14. Additional information:

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division SOUTH ATLANTICDistrict JACKSONVILLE

2. Permit start date/expire date:

Permittee: U.S. Army Corps of EngineersDate issued: Nov 82Permit No. 05-22308Start Date: 30 Nov 82Expiry Date: 1 Feb 85

3. Country of origin of wastes and port of loading:

a. United States of America

b. Canaveral Harbor, Florida

4. Specification of dredged material and process from which derived:

a. Description: Material is poorly graded sand with a trace of gravel size shell fragments.

b. Mode of dredging: Hopper Dredge - Suction

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Slurry, non-cohesive

6. Total quantity (cubic meters): 300,797.5

7. Expected frequency of dumping (for reporting period):

a. Daily

b. Actual start: 31 March 83c. Actual completion: 9 May 83

8. Chemical composition:**a. Elutriate test results:**

(1) Nutrients: mg/l	Range
NH ₄ -N-----	0.47 - 4.77
O-P ₀₄ , P-----	<0.005 - 0.40
(2) Metals: mg/l	
Pb-----	1.1 - 2.8
Zn-----	18 - 77
Fe-----	1.6 - 16
Ni-----	1.0 - 2.7
Cu-----	1.2 - 25

(2) Continued

Mn-----	0.5 - 7
Ag-----	<0.5
Hg-----	<0.5 - 5.0
Se-----	<5

(3) Organics:

Oil & Grease	0.2 - 9.4
PCB's mg/l	<2

9. Properties of dredged material:**a. Solubility (% water)** Not available**b. Density (gm/cc)** .2514 (Absolute)**c. pH** Not available**d. % sand** _____ **% silt** _____ **% clay** _____

Not available

10. Method of packaging: Not applicable**11. Method of release:** Bottom dump**12. Procedure and site for tank washing:** Hoppers flushed at disposal site**13. Approved dumping site:****a. Geographical position (latitude and longitude):** _____28°19'53", 80°31'08", 28°18'50", 80°29'40"
28°17'35", 80°30'52", 28°18'38", 80°32'20"**b. Depth of water (meters):** _____

12

c. Distance from nearest coast (kilometers): _____

6.7

14. Additional information:

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division SOUTH ATLANTICDistrict JACKSONVILLE

2. Permit start date/expire date:

Permittee: U.S. Army Corps of EngineersDate issued: July 1982Permit No. 560391089Start Date: 9 July 1982Expiry Date: 25 June 1987

3. Country of origin of wastes and port of loading:

a. United States of America

b. Fort Pierce Harbor, FL

4. Specification of dredged material and process from which derived:

a. Description: Sand and shell

b. Mode of dredging: Barge with Dragline

c. Mode of transportation: SCOWS

5. Form in which dredged material is presented for disposal:

6. Total quantity (cubic meters): 80,914.6

7. Expected frequency of dumping (for reporting period):

a. Daily

b. Actual start: 1 Jan 83c. Actual completion: 22 Apr 83

8. Chemical composition: none obtained

9. Properties of dredged material:

a. Solubility (% water) not available

b. Density (gm/cc) .2720 (Absolute)

c. pH Not available

d. % sand _____ % silt _____ % clay _____

Not available

10. Method of packaging: Not applicable

11. Method of release: Bottom dump.

12. Procedure and site for tank washing: Flushed at disposal site.

13. Approved dumping site:

a. Geographical position (latitude and longitude):

27°28'30", 80°12'33", 27°28'30", 80°11'37"
27°28'30", 80°11'27", 27°27'30", 80°12'33"

b. Depth of water (meters):

15.2

c. Distance from nearest coast (kilometers):

6.4

14. Additional information:

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division SOUTH ATLANTICDistrict JACKSONVILLE

2. Permit start date/expire date:

Permittee: U.S. A. Corps of EngineersDate issued: May 80Permit No. 50-30390Start Date: 9 May 80Expiry Date: May 85

3. Country of origin of wastes and port of loading:

a. United States of America

b. Palm Beach Harbor, FL

4. Specification of dredged material and process from which derived:

a. Description: Fine to coarse, clean quartz sand, shell fragments, and limestone pebbles.

b. Mode of dredging: Hopper Dredge - SUCTION

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Slurry, non-cohesive

6. Total quantity (cubic meters): 140,736.1

7. Expected frequency of dumping (for reporting period):

a. Daily

b. Actual start: Mar 83c. Actual completion: 22 Apr 83

8. Chemical composition: None obtained

9. Properties of dredged material:

a. Solubility (% water) Not Available

b. Density (gm/cc) .2710 (absolute)

c. pH Not Available

d. % sand _____ % silt _____ % clay _____

Not available

10. Method of packaging: Not Applicable

11. Method of release: Bottom dump

12. Procedure and site for tank washing: Hoppers flushed at disposal site.

13. Approved dumping site:

a. Geographical position (latitude and longitude): _____

26°46'00", 79°58'55", 26°46'00", 79°57'47"

26°45'00", 79°57'47", 26°45'00", 79°58'55".

b. Depth of water (meters): _____

160

c. Distance from nearest coast (kilometers): _____

5.4

14. Additional information:

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division SOUTH ATLANTICDistrict JACKSONVILLE

2. Permit start date/expire date:

Permittee: U. S. Army Corps of EngineersDate issued: 9 Jul 82Permit No. 450389679Start Date: 9 Jul 82Expiry Date: 25 Jun 87

3. Country of origin of wastes and port of loading:

a. United States of America

b. Fernandina Harbor, FL

4. Specification of dredged material and process from which derived:

a. Description: Gray and black organic - silty and clay sizes

b. Mode of dredging: Hopper Dredge - Suction

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Slurry, non-cohesive

6. Total quantity (cubic meters): 116,300.2

7. Expected frequency of dumping (for reporting period):

a. Daily

b. Actual start: 17 May 83c. Actual completion: 24 May 83

8. Chemical composition:**a. Elutriate test results:**

(1) Nutrients: mg/l	Range
NH ₄ -N-----	0.25 - 0.26
Ortho-P-----	0.04 - 0.08
(2) Metals:	
Hg-----	<0.0001
Mn-----	0.0008 - 0.0080
Pb-----	<0.0002
Zn-----	0.035 - 0.061
Fe-----	0.0080 - 0.0180

(2) Continued

Se-----	<0.0002 - 0.0002
Cd-----	0.155 - 0.325
Cu-----	0.0003 - 0.0004
Ag-----	<0.0002
Ni-----	0.0238 - 0.04

(3) Organics:

Oil & Grease 0.2 - 0.6
PCG - None detected

9. Properties of dredged material:**a. Solubility (% water)** Not available**b. Density (gm/cc)** .2590 (Absolute)**c. pH** Not available**d. % sand** _____ **% silt** _____ **% clay** _____

Not available

10. Method of packaging: Not applicable**11. Method of release:** Bottom dump**12. Procedure and site for tank washing:** Hoppers flushed at disposal site.**13. Approved dumping site:****a. Geographical position (latitude and longitude):** _____

30°42'00", 81°19'05", 30°42'00", 81°17'55"
30°41'00", 81°17'55", 30°41'00", 81°19'05"

b. Depth of water (meter): _____

10.7

c. Distance from nearest coast (kilometers): _____

10.5

14. Additional information:

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division SOUTH ATLANTIC

District JACKSONVILLE

2. Permit start date/expire date:

Permittee: U.S. Army Corps of Engineers

Date issued: 30 Nov 82

Permit No. 05-22308

Start Date: 30 Nov 82

Expiry Date: 01 Feb 85

3. Country of origin of wastes and port of loading:

a. United States of America

b. Canaveral Harbor, FL

4. Specification of dredged material and process from which derived:

a. Description: Material is poorly graded sand with a trace of gravel size shell fragments

b. Mode of dredging: Hopper Dredge - Suction

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Slurry, non-cohesive

6. Total quantity (cubic meters): 698,894.9

7. Expected frequency of dumping (for reporting period):

a. Daily

b. Actual start: 19 Aug 83

c. Actual completion: 14 Oct 83

8. Chemical composition:

a. Elutriate test results:

(1) Nutrients: mg/l Range
 NH₄-N-----0.47 - 4.77
 O-P₀₄, P-----<0.005 - 0.40

(2) Metals: (mg/l) Range
 Pb-----1.1 - 2.8
 Zn-----18 - 77
 Fe-----1.6 - 16
 Ni-----1.0 - 2.7

Cu-----1.2
 Mn-----0.5
 Ag-----<0.5
 Hg-----<0.5
 Se-----<5

(3) Organics:
 Oil & Grease 0.2 - 9.4
 PCB's mg/l - <2

9. Properties of dredged material:

a. Solubility (% water) Not available

b. Density (gm/cc) 2514 (Absolute)

c. pH Not available

d. % sand _____ % silt _____ % clay _____

Not available

10. Method of packaging: Not applicable

11. Method of release: Bottom dump

12. Procedure and site for tank washing: Hoppers flushed at disposal site

13. Approved dumping site:

a. Geographical position (latitude and longitude): _____

28°19'53", 80°31'08", 28°18'50", 80°29'40"
 28°17'35", 80°30'52", 28°18'38", 80°32'20"

b. Depth of water (meters): _____

12

c. Distance from nearest coast (kilometers): _____

6.7

14. Additional information:

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division SOUTH ATLANTIC

District JACKSONVILLE

2. Permit start date/expire date:

Permittee: U.S. Army Corps of Engineers

Date issued: 9 Jul 82

Permit No. 450389679

Start Date: 9 Jul 82

Expiry Date: 25 Jun 87

3. Country of origin of wastes and port of loading:

a. United States of America

b. Fernandina Harbor, FL

4. Specification of dredged material and process from which derived:

a. Description: Gray and black organic with silty and clay sizes

b. Mode of dredging: Hopper Dredge - Suction

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Slurry, non-cohesive

6. Total quantity (cubic meters): 475,492.5

7. Expected frequency of dumping (for reporting period):

a. Daily

b. Actual start: 14 Oct 83

c. Actual completion: 30 Nov 83

8. Chemical composition:

a. Elutriate test results:

(1) Nutrients:	mg/l	Range
NH ₄ -N		0.25 - 0.26
Ortho-P		0.04 - 0.08
(2) Metals:		
Hg		<0.0001
Mn		0.0008 - 0.0080

Pb	<0.0002
Zn	0.035 - 0.061
Fe	0.0080 - 0.0150
Se	<0.0002 - 0.0004
Cd	0.155 - 0.325
Cu	0.0003 - 0.0004
Ag	<0.0002
Ni	0.0238 - 0.0450

(3) Organics:

Oil & Grease 0.2 - 0.6
PGB - None detected

9. Properties of dredged material:

a. Solubility (% water) Not Available

b. Density (gm/cc) 2710 (Absolute)

c. pH Not Available

d. % sand _____ % silt _____ % clay _____

Not Available

10. Method of packaging: Not applicable

11. Method of release: Bottom dump

12. Procedure and site for tank washing: Hoppers flushed at disposal site

13. Approved dumping site:

a. Geographical position (latitude and longitude):

30°42'00", 81°19'05", 30°42'00", 81°17'55"
30°41'00", 81°17'55", 30°41'00", 81°19'05"

b. Depth of water (meters):

10.7

c. Distance from nearest coast (kilometers):

10.5

14. Additional information:

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division SOUTH ATLANTIC

District JACKSONVILLE

2. Permit start date/expire date:

Permittee: U.S. Army Corps of Engineers

Date issued: 11 Jul 80

Permit No. 16-27215

Start Date: 11 Jul 80

Expiry Date: 1 Jul 85

3. Country of origin of wastes and port of loading:

a. United States of America

b. Jacksonville Harbor, FL

4. Specification of dredged material and process from which derived:

a. Description: Sand with some shell and silt

b. Mode of dredging: Hopper Dredge - Suction

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Slurry, non-cohesive

6. Total quantity (cubic meters): 181,702.6

7. Expected frequency of dumping (for reporting period):

a. Daily

b. Actual start: 10 Nov 83; 30 Nov 83 c. Actual completion: 18 Dec 83

8. Chemical composition:

a. Elutriate test results:

(1) Nutrients:

	<u>Receiving Water</u>	<u>Elutriate</u>
Nitrogen, Ammonia, ppm	0.13-0.16	0.04-0.08
Soluble Orthophosphate, ppm	0.02-0.04	<0.01
Total phosphorus, mg/l	0.08-0.13	0.06-0.28

(2) Metals:

	<u>Receiving Water</u>	<u>Elutriate</u>
Mercury, mg/l	0.0002-0.0004	0.0002-0.00041
Manganese, mg/l	0.0095-0.017	0.011-0.043
Lead, mg/l	0.002-0.018	0.012-0.015
Zinc, mg/l	0.016-0.018	0.024-0.216
Iron, mg/l	0.222-0.302	0.09-0.276
Copper, mg/l	0.020-0.080	0.034-0.045
Nickel, mg/l	0.020-0.080	0.010-0.025
Selenium, mg/l	<0.01	<0.01
Silver, mg/l	0.0045-0.0084	0.0045-0.0084

9. Properties of dredged material:

a. Solubility (% water) Not available

b. Density (gm/cc) 2500 (Absolute)

c. pH Not available

d. % sand _____ % silt _____ % clay _____

Not available

10. Method of packaging: Not applicable

11. Method of release: Bottom dump

12. Procedure and site for tank washing: Hoppers flushed at disposal site

13. Approved dumping site:

a. Geographical position (latitude and longitude): _____

30°21'30", 81°17'26", 30°20'30", 81°17'26"
30°20'30", 81°18'34", 30°21'30", 81°18'34"

b. Depth of water (meters): _____

15

c. Distance from nearest coast (kilometers): _____

9

14. Additional information:

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LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division South Atlantic

District Mobile

2. Permit start date/expire date:

Permittee: Corps of Engineers (Not 103)

Date issued: 11 Jan 77

Permit No. 40 CFR 228.12 (A) (III) (H)

Start Date: 11 Jan 77

Expiry Date: 31 Jan 85

3. Country of origin of wastes and port of loading:

a. United States of America

b. Mobile Harbor, Alabama - Bar Channel

4. Specification of dredged material and process from which derived:

a. Description: Maintenance dredged material, sand.

b. Mode of dredging: Hopper, Dragarms, Suction

c. Mode of transportation: Hopper on board dredge

5. Form in which dredged material is presented for disposal: Liquid

6. Total quantity (cubic meters): 100,856

7. Expected frequency of dumping (for reporting period):

a. 20 times daily

b. Actual start: 1 Jan 83

c. Actual completion: 7 Jan 83

3. Chemical composition: See attached

C-22 13 f

9. Properties of dredged material:

a. Solubility (% water) Not available

b. Density (gm/cc) 1.983

c. pH not obtained

d. % sand 86 % silt 9 % clay 5

10. Method of packaging: Not packaged

11. Method of release: Bottom dump

12. Procedure and site for tank washing: Dredge hopper is flushed at authorized disposal site.

13. Approved dumping site:

a. Geographical position (latitude and longitude): 30° 09' N, 88° 07' W

b. Depth of water (meters): 10

c. Distance from nearest coast (kilometers): 6.7

14. Additional information:

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8. Chemical Composition

BULK ANALYSES OF ENTRANCE CHANNEL SEDIMENT
SAMPLES COLLECTED FROM PENSACOLA HARBOR, FLORIDA

Sample Number	TOC (mg/kg P)	Total Phosphate (mg/kg N)	Ammonia Nitrogen (mg/kg N)	Oil and Grease (mg/g)	Trace Metals (mg/kg)								
					Hg	As	Cu	Zn	Cd	Pb	Ni	Cr	Fe ⁺⁺
PB-1	1.66	67.00	9.0	0.41	0.12	0.5	4.9	128.4	<0.1	<0.5	<0.5	43.5	<0.3
PB-2	0.36	7.00	27.4	0.36	0.10	0.5	<0.3	1.0	<0.1	<0.5	<0.5	1.0	<0.3
PB-3	1.44	11.25	75.00	0.31	0.18	1.1	<0.3	32.4	<0.1	<0.5	4.3	5.9	<0.3

Note: Stations located from inner portion of channel near Santa Rosa Island (PB-3) to outer portion (seaward) of channel (PB-1); mg/kg = ppm

ELUTRIATE ANALYSES OF SEDIMENT AND
WATER SAMPLES FOR CHEMICAL AND HEAVY METALS
CONSTITUENTS COLLECTED FROM PENSACOLA HARBOR, FLORIDA

Parameter	Dilution	Standard Elutriate
Total organic carbon (ppm)	11.2	20.6
Ammonia nitrogen (ppm)	1.08	0.21
Phosphorus (ppm)	0.025	0.123
pH	8.28	8.13
Mercury (ppb)	<0.3	<0.3
Arsenic (ppb)	21.0	21.0
Copper (ppb)	<0.2	<0.2
Zinc (ppb)	32.0	40.0
Cadmium (ppb)	0.2	<0.2
Lead (ppb)	<0.5	<0.5
Nickel (ppb)	<0.5	<0.5
Chromium (ppb)	<0.5	<0.5
Iron (ppb)	<10.0	<10.0

ppm = mg/liter

ppb = ug/liter

Note: Sediment sample number: PB-2; Water sample number:
PB-2; Collected: 21 August 1974

AD-A149 438 OCEAN DUMPING REPORT FOR CALENDAR YEAR 1983 DREDGED
MATERIAL(U) CORPS OF ENGINEERS FORT BELVOIR VA WATER
RESOURCES SUPPORT CENTER JUL 84 WRSC-83-SR-1

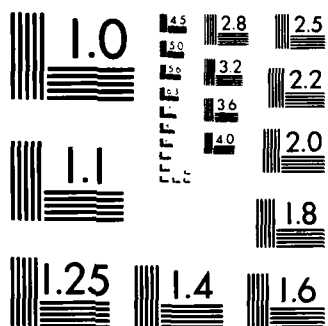
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LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division South Atlantic District Mobile

2. Permit start date/expire date:

Permittee: Corps of Engineers (Not 103)

Date issued: 11 Jan 77 Permit No. 40 CFR 228.12 (A) (III) (H)

Start Date: 11 Jan 77 Expiry Date: 31 Jan 85

3. Country of origin of wastes and port of loading:

a. United States of America

b. Pascagoula Harbor, Mississippi - Bar Channel

4. Specification of dredged material and process from which derived:

a. Description: Maintenance dredged material, sand.

b. Mode of dredging: Hopper, Dragarms, Suction.

c. Mode of transportation: Hopper on board dredge.

5. Form in which dredged material is presented for disposal: Liquid

6. Total quantity (cubic meters): 377,081.

7. Expected frequency of dumping (for reporting period):

a. 17 times daily

b. Actual start: 9 Nov 83 c. Actual completion: 10 Dec 83

8. Chemical composition: See Attached

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9. Properties of dredged material:

a. Solubility (% water) Not obtained

b. Density (gm/cc) Not obtained

c. pH Not obtained

d. % sand 60 % silt 20 % clay 10

10. Method of packaging: Not packaged.

11. Method of release: Bottom Dump

12. Procedure and site for tank washing: Dredge hopper is flushed at authorized disposal site.

13. Approved dumping site:

a. Geographical position (latitude and longitude): 30° 11' N, 88° 30' W

b. Depth of water (meters): 12

c. Distance from nearest coast (kilometers): 16.6

14. Additional information:

CHEMICAL COMPOSITION

BULK SEDIMENT ANALYSES
 PASCAGOULA HARBOR, BAR CHANNEL, JULY 1974
 (U.S. Corps of Engineers, 1975)

PARAMETER	RANGE OF VALUES	UNITS ¹
<u>NUTRIENTS</u>		
TOC	1.78 - 12.6	mg/Kg x 10 ³
Oil & Grease	45 - 615	mg/Kg
Total Phosphorus	10.5 - 59.2	mg/Kg as P
TKN	151 - 1305	mg/Kg as N
Ammonia Nitrogen	23.5 - 89.6	mg/Kg as N
<u>HEAVY METALS</u>		
Arsenic	0.7 - 1.0	mg/Kg
Cadmium	<0.1 - 0.77	mg/Kg
Chromium	11.1 - 761.7	mg/Kg
Copper	<0.3 - 4.8	mg/Kg
Iron (Fe ⁺²)	<0.3	mg/Kg
Lead	<0.5 - 36.5	mg/Kg
Mercury	0.03 - 0.46	mg/Kg
Nickel	<0.5 - 34.2	mg/Kg
Zinc	12.4 - 109.7	mg/Kg
<u>PESTICIDES/PCB's²</u>		
Dieldrin	0.996	ppb
DDT/DDE/DDD	N.D. ³	ppb
PCB Isomers	N.D. - 12.097	ppb

¹ Dry Weight Basis

² Other pesticides which were analyzed but were consistently below detectable limits: Aldrin, Chlordane, Endrin, Heptachlor, Heptachlor Epoxide, Lindane, Methoxychlor, Mirex, Toxaphene, Diazinon, Guthion, Malathion, Methyl Parathion, Parathion

³ Non-Detectable

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1983

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1. Issuing Authority:

Division South Atlantic

District Mobile

2. Permit start date/expire date:

Permittee: Corps of Engineers (Not 103)

Date issued: Jan 11, 1977

Permit No. 40 CFR 228.12(A)(III)(H)

Start Date: Jan 11, 1977

Expiry Date: Jan 31, 1985

3. Country of origin of wastes and port of loading:

a. United States of America

b. Pensacola Harbor, Florida, Entrance Channel

4. Specification of dredged material and process from which derived:

a. Description: Maintenance dredged material, sand.

b. Mode of dredging: Hopper, Dragarms, Suction

c. Mode of transportation: Hopper on board dredge

5. Form in which dredged material is presented for disposal: Liquid

6. Total quantity (cubic meters): 87,189

7. Expected frequency of dumping (for reporting period):

a. 19 times daily

b. Actual start: 13 Dec 83

c. Actual completion: 23 Dec 83

8. Chemical composition: See Attached

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9. Properties of dredged material:

a. Solubility (% water) not obtained

b. Density (gm/cc) not obtained

c. pH not obtained

d. % sand 93 % silt 3 % clay 4

10. Method of packaging: Not packaged

11. Method of release: Bottom dump

12. Procedure and site for tank washing: Dredge hopper is flushed at authorized disposal site

13. Approved dumping site:

a. Geographical position (latitude and longitude): 30°16'N, 87°19'W

b. Depth of water (meters): 9.5

c. Distance from nearest coast (kilometers): 4.6

14. Additional information:

8. Chemical Composition

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BULK ANALYSES OF ENTRANCE CHANNEL SEDIMENT SAMPLES COLLECTED FROM MOBILE HARBOR, ALABAMA

Sample Number	TOC (mg/g)	Total Phosphate (mg/kg P)	Ammonia Nitrogen (mg/kg N)	Oil and Grease (mg/g)	Trace Metals (mg/kg)								
					Hg	As	Cu	Zn	Cd	Pb	Ni	Cr	Fe ⁺⁺
MB-1	0.76	18.25	39.8	0.44	0.24	0.8	4.5	14.2	<0.1	<0.5	5.4	4.5	1.0
MB-2	1.18	60.00	33.6	0.51	1.11	1.3	2.6	1.1	<0.1	<0.5	5.3	22.7	<0.3
MB-3	8.61	34.50	44.8	0.74	0.31	1.8	7.0	5.57	<0.1	<0.5	4.0	17.0	0.8

Note: Stations located from inner portion of channel within Mobile Bay (MB-3) to outer portion (seaward) of channel (MB-1); mg/kg = ppm

ELUTRIATE ANALYSES OF SEDIMENT AND WATER SAMPLES FOR CHEMICAL AND HEAVY METALS CONSTITUENTS COLLECTED FROM MOBILE HARBOR, ALABAMA

Parameter	Dilution Water	Standard Elutriate
Total Organic carbon (ppm)	7.2	16.5
Ammonia nitrogen (ppm)	0.04	1.05
Phosphorus (ppm)	0.085	0.340
pH	7.50	7.82
Mercury (ppb)	<0.3	<0.3
Arsenic (ppb)	<10.0	10.0
Copper (ppb)	0.9	1.0
Zinc (ppb)	25.1	22.4
Cadmium (ppb)	0.2	0.2
Lead (ppb)	2.9	2.3
Nickel (ppb)	2.8	3.1
Chromium (ppb)	<0.5	<0.5
Iron (ppb)	22.0	22.0

ppm = mg/liter

ppb = ug/liter

Note: Sediment sample number: MB-2; water sample number:
MB-2; collected 28 July 1974

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division Lower Miss. ValleyDistrict New Orleans

2. Permit start date/expire date:

Permittee: New Orleans District, Corps of EngineersDate issued: 15 December 82

Permit No. _____

Start Date: 23 Jan 83Expiry Date: 18 June 83

3. Country of origin of wastes and port of loading:

a. United States of Americab. Mississippi River, Baton Rouge to the Gulf of Mexico, La. (Southwest Pass)

4. Specification of dredged material and process from which derived:

a. Description: Medium to fine grain sand, silt and clay.b. Mode of dredging: Hopper dredgec. Mode of transportation: Hopper dredge5. Form in which dredged material is presented for disposal: Noncohesive slurry6. Total quantity (cubic meters): 6,409,136M³

7. Expected frequency of dumping (for reporting period):

a. 12 dumps per day, 7 days per weekb. Actual start: 23 Jan 83c. Actual completion: 18 June 83

8. Chemical composition: (Elutriates)

a. Nutrients: (mg/l)

Nitrogen (KJ) 2.5
Nitrogen (NH₄ dissolved) 2.2

c. Organics: (ug/l)

Phenols 14.0
Diazinon 0.02
2,4-D 0.01

b. Metals: (ug/l)

As 3.0 Ni 3.0
Cr 12.0 Zn 20.0
Mn 2,200
Hg .01

8. Chemical composition: (Sediments)

a. Metals: (ug/l)

As 9.0 Ni 15.0
 Cr 10.0 Zn 45.0
 Cu 14.0
 Pb 20.0
 Mn 500.0
 Hg 0.05

b. Organics: (ug/l)

Phenols 5.0

c. Other: (mg/kg)

Cod 32,000
 Oil and Grease 1.0

9. Properties of dredged material:

a. Solubility (% water) 60

b. Density (gm/cc) 1.651

c. pH Not measured

d. % sand 70 % silt 15 % clay 15

10. Method of packaging: N/A

11. Method of release: Bottom dump

12. Procedure and site for tank washing: Hopper flushed with seawater twice daily at disposal site.

13. Approved dumping site:

a. Geographical position (latitude and longitude):

28° 53' 15" N, 89° 26' 30" W

b. Depth of water (meters):18c. Distance from nearest coast (kilometers):7.5

14. Additional information:

a. Liquid Phase Bioassay: No effectb. Suspended Particulate Phase Bioassay: No effectc. Solid Phase Bioassay: No effect

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division Lower Miss. ValleyDistrict New Orleans

2. Permit start date/expire date:

Permittee: New Orleans District, Corps of EngineersDate issued: 14 Apr 83

Permit No. _____

Start Date: 30 Jan 83Expiry Date: 6 May 83

3. Country of origin of wastes and port of loading:

a. United States of Americab. Mississippi River-Gulf Outlet, La. (Gulf Approach Channel)

4. Specification of dredged material and process from which derived:

a. Description: Medium to fine grain sand and siltb. Mode of dredging: Hopper dredgec. Mode of transportation: Hopper dredge5. Form in which dredged material is presented for disposal: Noncohesive slurry6. Total quantity (cubic meters): 5,450,062M³

7. Expected frequency of dumping (for reporting period):

a. 10 dumps per day, 7 days per weekb. Actual start: 30 Jan 83c. Actual completion: 6 May 83

8. Chemical composition: (Elutriates)

a. Nutrients: (mg/l)

KJD 3.8

NH₄ 3.7

COD 630

c. Organics: (ug/l)

Diazinon 0.17

2, 4-D 0.02

b. Metals: (ug/l)

As 3.0

Cd 1.0

Hg 0.1

Zn 20.0

Mn 690

8. Chemical composition: (Sediments)

a. Metals: (ug/l)		b. Organics: (mg/kg)	c. Other
As	6.0	KJD 4810	None
Cr	9.0	Oil and Grease 0.0	
Cu	14.0	Chlorodane 10.0	
Pb	20.0	PCB 3.0	
Mn	570		
Hg	0.03		
Ni	16.0		
Zn	40.0		

9. Properties of dredged material:

- a. Solubility (% water) 80
- b. Density (gm/cc) 1.543
- c. pH Not measured
- d. % sand 85 % silt 7 % clay 8

10. Method of packaging: N/A

11. Method of release: Bottom dump

12. Procedure and site for tank washing: Wash with seawater at disposal site once each day.

13. Approved dumping site:

a. Geographical position (latitude and longitude):

29° 24' 55" N, 88° 59' 30" W

b. Depth of water (meters):

12

c. Distance from nearest coast (kilometers):

27

14. Additional information:

- a. Liquid Phase Bioassay: No effect
- b. Suspend Particulate Phase Bioassay: No effect
- c. Solid Phase Bioassay: No effect

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division Lower Miss. Valley District New Orleans

2. Permit start date/expire date:

Permittee: New Orleans District, Corps of EngineersDate issued: 9 Feb 83 Permit No. _____Start Date: 26 Jun 83 Expiry Date: 11 Jul 83

3. Country of origin of wastes and port of loading:

a. United States of America

b. Mississippi River Outlets, Venice, La. (Tiger Pass)

4. Specification of dredged material and process from which derived:

a. Description: Medium to fine grain sand, silt and clay

b. Mode of dredging: Hydraulic cutterhead dredge

c. Mode of transportation: Floating pipeline

5. Form in which dredged material is presented for disposal: Noncohesive slurry

6. Total quantity (cubic meters): 422,652M³

7. Expected frequency of dumping (for reporting period):

a. Continuous, averaging approximately 22 hours per day, 7 days per week

b. Actual start: 26 June 83 c. Actual completion: 11 July 83

8. Chemical composition: (Elutriates)

a. Nutrients:

Nitrogen (Kj) 300 ug/l

b. Metals: (ug/l)

As	12.0	Cu	5.0
Cd	< 0.5	Pb	< 1.0
Cr	< 10.0	Hg	< 0.1
		Ni	74.0
		Zn	107.0

c. Organics: (ug/l)

ABHC	< 0.02	DDT	< 0.02
BBHC	< 0.02	MIX	< 0.01
HPT	< 0.02	MOC	< 0.03
CLD	< 0.05	TOX	< 0.1
DDE	< 0.02	PCB	< 0.1
DFL	< 0.02		
DDD	< 0.02		
END	< 0.02		

d. Chemical composition: (Sediments)

a. Metals: (mg/kg)

b. Organics: (ug/kg)

c. Other: (mg/kg)

As 20.0
Cd < 0.5
Cr 11.0
Cu 21.0
Pb 30.0
Hg < 0.1
Ni 30.0
Zn 104.0

aBHC < 0.1
bBHC < 0.1
HPT < 0.5
CLD 20.0
DDE < 0.5
DEL < 0.5
DDD < 0.5

END < 0.5
DDT < 0.5
MIX < 0.5
MOC < 0.5
TOX < 0.1
PCB < 0.1

Oil and Grease 3.0

9. Properties of dredged material:

a. Solubility (% water) 80

b. Density (gm/cc) 1.6

c. pH Not measured

d. % sand 70 % silt 15 % clay 15

10. Method of packaging: N/A

11. Method of release: Floating pipeline

12. Procedure and site for tank washing: N/A

13. Approved dumping site:

a. Geographical position (latitude and longitude):

29° 08' 15" N, 89° 26' 22" W

b. Depth of water (meters):

15

c. Distance from nearest coast (kilometers):

5

14. Additional information:

a. Liquid Phase Bioassay: No effect

b. Suspended Particulate Phase Bioassay: No effect

c. Solid Phase Bioassay: No effect

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division Lower Miss. ValleyDistrict New Orleans

2. Permit start date/expire date:

Permittee: New Orleans District, Corps of EngineersDate issued: 25 May 83

Permit No. _____

Start Date: 4 August 83Expiry Date: 11 October 83

3. Country of origin of wastes and port of loading:

a. United States of Americab. Barataria Bay Waterway, La. (Gulf Approach Channel)

4. Specification of dredged material and process from which derived:

a. Description: Medium to fine grain sand, silt and clayb. Mode of dredging: Hydraulic cutterhead dredgec. Mode of transportation: Floating pipeline5. Form in which dredged material is presented for disposal: Noncohesive slurry6. Total quantity (cubic meters): 706,795M³

7. Expected frequency of dumping (for reporting period):

a. Continuous, averaging approximately 22 hours per day, 7 days per week.b. Actual start: 4 August 83c. Actual completion: 11 October 83

8. Chemical composition: (Elutriates)

a. Nutrients:Nitrogen (KJ) 2,530 ug/lb. Metals: (ug/l)

As	3.0	Pb	7.0
Cd	< .5	Hg	0.6
Cr	< 10.0	Ni	61.0
Cu	< 1.0	Zn	8.0

c. Organics: (ug/l)

Chlordane	< .05	Toxaphene	< .10
DDD	< .02	γBHC	< .02
DDE	< .02	δBHC	< .02
DDT	< .02	PCB	< .10
Dieldrin	< .02		
Endrin	< .02		
Heptachlor	< .02		
Methoxychlor	< .03		
Mirex	< .01		

8. Chemical composition: (Sediments)

a. Metals: (ug/g)				b. Organics: (ug/kg)		Other:	
As	33.2	Hg	.35	Chlordane	< 1.0	Heptachlor	< .5
Cd	0.64	Ni	14.4	DDD	< .5	Methoxychlor	< .5
Cr	20.2	Zn	8.6	DDE	< .5	Mirex	< .5
Cu	14.0			DDT	< .5	Toxaphene	< .1
Pb	12.9			Dieldrin	< .5	aBHC	< .1
				Endrin	< .5	bBHC	< .1
						PCB	< .1
						Oil and Grease	139 mg/kg

9. Properties of dredged material:

- a. Solubility (% water) 80
- b. Density (gm/cc) 1.5
- c. pH Not measured
- d. % sand 50 % silt 30 % clay 20

10. Method of packaging: N/A

11. Method of release: Floating pipeline

12. Procedure and site for tank washing: N/A

13. Approved dumping site:

a. Geographical position (latitude and longitude): 29° 15' 26" N, 89° 55' 24" Wb. Depth of water (meters): 18c. Distance from nearest coast (kilometers): 6

14. Additional information:

a. Liquid Phase Bioassay: No effectb. Suspended Particulate Phase Bioassay: No effectc. Solid Phase Bioassay: No effect

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division Lower Miss. ValleyDistrict New Orleans

2. Permit start date/expire date:

Permittee: New Orleans District, Corps of EngineersDate issued: 18 May 83

Permit No. _____

Start Date: 7 July 83Expiry Date: 20 August 83

3. Country of origin of wastes and port of loading:

a. United States of Americab. Houma Navigation Canal, La. (Cat Island Pass)

4. Specification of dredged material and process from which derived:

a. Description: Medium to fine sand, silt and clayb. Mode of dredging: Hydraulic cutterhead dredgec. Mode of transportation: Floating pipeline5. Form in which dredged material is presented for disposal: Noncohesive slurry6. Total quantity (cubic meters): 581,096M³

7. Expected frequency of dumping (for reporting period):

a. Continuous, averaging approximately 22 hours per day, 7 days per weekb. Actual start: 7 July 83c. Actual completion: 20 August 83

8. Chemical composition: (Elutriates)

a. Nutrients: (mg/l)c. Organics: (ug/l)Nitrogen (KJD) 1.3Phenols 6.0Nitrogen (Dissolved NH₄) .842,4-D .0b. Metals: (ug/l)As .0Cd .0Cr .0Mn 50Hg .2

8. Chemical composition: (Sediments)

a. <u>Metals</u> : (mg/kg)				b. <u>Organics</u> : (mg/kg)		c. <u>Other</u> : (mg/kg)	
As	5.0	Hg	.07	Phenols	.0	COD	14,000
Cd	1.0	Ni	10.0			Oil and Grease	1.0
Cr	6.0	Zn	37.0				
Cu	12.0						
Pb	20.0						

9. Properties of dredged material:

- a. Solubility (% water) 80
- b. Density (gm/cc) 1.8
- c. pH Not measured
- d. % sand 95 % silt 2 % clay 3

10. Method of packaging: N/A

11. Method of release: Floating pipeline

12. Procedure and site for tank washing: N/A

13. Approved dumping site:

a. Geographical position (latitude and longitude): 29° 02' 45" N, 90° 34' 40" Wb. Depth of water (meters): 6c. Distance from nearest coast (kilometers): 18

14. Additional information:

- a. Liquid Phase Bioassay: No effect
- b. Suspended Particulate Phase Bioassay: No effect
- c. Solid Phase Bioassay: No effect

Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division Lower Miss. ValleyDistrict New Orleans

2. Permit start date/expire date:

Permittee: New Orleans District, Corps of EngineersDate issued: 17 March 83

Permit No. _____

Start Date: 5 Aug 83Expiry Date: 1 Nov 83

3. Country of origin of wastes and port of loading:

a. United States of Americab. Atchafalava River, Bayous Chene, Boeuf and Black, La. (Bar Channel)

4. Specification of dredged material and process from which derived:

a. Description: Medium to fine grain sand and silt.b. Mode of dredging: Hydraulic cutterhead dredgec. Mode of transportation: Floating pipeline5. Form in which dredged material is presented for disposal: Noncohesive slurry6. Total quantity (cubic meters): 8,161,771M³

7. Expected frequency of dumping (for reporting period):

a. Continuous, averaging approximately 22 hours per day, 7 days per weekb. Actual start: 5 Aug 83c. Actual completion: 1 Nov 83

8. Chemical composition: (Elutriates)

a. Nutrients: (mg/l)Nitrogen (KJD) 2.8
Nitrogen (dissolved NH₄) 2.3c. Organics: (ug/l)Phenols 3.0
Diazinon 0.02
PCB 0.1
2,4-D 0.01b. Metals: (ug/l)As 3.0 Ni 13
Cr 4.0 Zn 10
Cu 1.0
Mn 1,200

9. Chemical composition: (Sediments)

a. Metals: (ug/l)		b. Organics: (ug/kg)		c. Other: (Mg/kg)	
As	10	Zn	50	DDD	0.4
Cr	4			PCB	3.0
Cu	13			Carbon (tot. organic)	3.0
Pb	15			COD	47,000
Mn	450			Oil and Grease	0
Hg	0.05				
Ni	15				

9. Properties of dredged material:

- a. Solubility (% water) 80
- b. Density (gm/cc) 1.45
- c. pH Not measured
- d. % sand 10 % silt 45 % clay 45

10. Method of packaging: N/A

11. Method of release: Floating pipeline

12. Procedure and site for tank washing: N/A

13. Approved dumping site:

a. Geographical position (latitude and longitude):

29° 16' 06" N, 91° 27' 49" W

b. Depth of water (meters):

5

c. Distance from nearest coast (kilometers):

10

14. Additional information:

a. Liquid Phase Bioassay: no effectb. Suspend Particulate Phase Bioassay: no effectc. Solid Phase Bioassay: no effect

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Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division Lower Miss. ValleyDistrict New Orleans

2. Permit start date/expire date:

Permittee: New Orleans District, Corps of EngineersDate issued: 31 Jan 83

Permit No. _____

Start Date: 23 Mar 83Expiry Date: 24 May 83

3. Country of origin of wastes and port of loading:

a. United States of America

b. Calcasieu River and Pass La. (Gulf Approach Channel)

4. Specification of dredged material and process from which derived:

a. Description: Fine grain sand, silt and organic material

b. Mode of dredging: Hopper dredge

c. Mode of transportation: Hopper dredge

5. Form in which dredged material is presented for disposal: Noncohesive slurry

6. Total quantity (cubic meters): $4,252,055M^3$

7. Expected frequency of dumping (for reporting period):

a. Continuous agitation and/or 10 dumps per day, 7 days per week

b. Actual start: 23 Mar 83c. Actual completion: 24 May 83

8. Chemical composition: (Elutriates)

a. Nutrients: (mg/l)Nitrogen (dissolved NH_4) 1.3

Nitrogen (KJN) 1.8

Organics: (ug/l)

Diazinon 0.04

2,4-D 0.9

b. Metals: (ug/l)

As 5.0

Cd 1.0

Cr 2.0

Mn 540

Hg 0.1

8. Chemical composition: (Sediments)

a. Metals: (ug/g)

Cr 4.0
 Cu 3.0
 Mn 190.0
 Hg .01
 Zn 10.0
 Cd 0.02

b. Organics: (ug/g)

Phenol 2.0
 DDD 0.2
 DDE 0.2
 PCB 3.0

c. Others:

Carbon (tot. organic) 1.0 %
 COP 14,000 mg/kg
 Nitrogen (KJD) 2,600 mg/kg
 Phosphorus (tot. PO₄) 0.09 mg/kg

9. Properties of dredged material:

a. Solubility (% water) 50

b. Density (gm/cc) 1.14

c. pH Not measured

d. % sand 85 % silt 15 % clay 20

10. Method of packaging: N/A

11. Method of release: Bottom dump for dredge and haul, continuous overflow during agitation.

12. Procedure and site for tank washing: Hopper flushed twice daily with seawater at disposal site.

13. Approved dumping site:

a. Geographical position (latitude and longitude):

29° 42' 06" N, 93° 20' 39" W

b. Depth of water (meters):

8

c. Distance from nearest coast (kilometers):

5

14. Additional information: Ocean dumping criteria waived.

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Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division Southwestern District Galveston

2. Permit start date/expire date:

Permittee: _____

Date issued: 11 Apr 83 Permit No. _____

Start Date: 10 May 83 Expiry Date: 5 July 83

3. Country of origin of wastes and port of loading:

a. United States of America

b. Port Mansfield, Texas

4. Specification of dredged material and process from which derived:

a. Description: Sand, silt and clay from channel maintenance

b. Mode of dredging: Hopper Dredge "MERMENTAU"

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Slurry - silt, clay
and sand in suspension

6. Total quantity (cubic meters): 285,016

7. Expected frequency of dumping (for reporting period):

a. 25 daily, 7 days/week

b. Actual start: 10 May 83 c. Actual completion: 5 Jul 83

8. Chemical composition:

9. Properties of dredged material:

a. Solubility (% water) 80

b. Density (gm/cc) 1.8

c. pH N/A

d. % sand 54 % silt 17 % clay 29

10. Method of packaging:

11. Method of release: Bottom release

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.

13. Approved dumping site:

a. Geographical position (latitude and longitude): 26° 34' 07", 97° 15' 35"
(center coordinates)b. Depth of water (meters): 13c. Distance from nearest coast (kilometers): 4

14. Additional information:

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Report of Ocean Dumping Permits - CY 83

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1. Issuing Authority:

Division Southwestern District Galveston

2. Permit start date/expire date:

Permittee: _____

Date issued: 16 May 83 Permit No. _____

Start Date: 9 June 83 Expiry Date: 31 July 83

3. Country of origin of wastes and port of loading:

a. United States of America

b. Freeport Harbor, Texas

4. Specification of dredged material and process from which derived:

a. Description: Sand, silt and clay from channel maintenance

b. Mode of dredging: Hopper Dredges "MERMENTAU" & "ATCHAFALAYA"
"WHEELER"

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Slurry - silt and
clay in suspension

6. Total quantity (cubic meters): 1,003,115

7. Expected frequency of dumping (for reporting period):

a. 25 daily, 7 days/week

b. Actual start: 9 Jun 83 c. Actual completion: 7 Nov 83

8. Chemical composition:

9. Properties of dredged material:

a. Solubility (% water) 80

b. Density (gm/cc) 1.5

c. pH N/A

d. % sand 13.4 % silt 3.3 % clay 83.3

10. Method of packaging:

11. Method of release: Bottom release

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site

13. Approved dumping site:

a. Geographical position (latitude and longitude): 28° 54', 95° 17'
(center coordinates)b. Depth of water (meters): 10c. Distance from nearest coast (kilometers): 3.2

14. Additional information:

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Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division Southwestern District Galveston

2. Permit start date/expire date:

Permittee: _____

Date issued: _____ Permit No. _____

Start Date: 24 Jul 83 Expiry Date: _____

3. Country of origin of wastes and port of loading:

- a. United States of America
- b. Sabine-Neches Waterway, Texas

4. Specification of dredged material and process from which derived:

a. Description: Silt, sand and clay from channel maintenance

b. Mode of dredging: Hopper Dredge "WHEELER"

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: slurry - silt, clay
and sand in suspension

6. Total quantity (cubic meters): 152,920

7. Expected frequency of dumping (for reporting period):

a. 6 daily, 7 days/week

b. Actual start: 24 Jul 83 c. Actual completion: 7 Aug 83

8. Chemical composition:

9. Properties of dredged material:

a. Solubility (% water) 80

b. Density (gm/cc) 1.5

c. pH N/A

d. % sand 6 % silt 23 % clay 71

10. Method of packaging:

11. Method of release: Bottom release

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.

13. Approved dumping site:

- a. Geographical position (latitude and longitude): 29° 27', 93° 44'
DA 2 29° 29', 93° 45' (center coordinates
DA 3 29° 33', 93° 47' Disposal Area No. 1)
DA 4 29° 36', 93° 49'
- b. Depth of water (meters): 10
- c. Distance from nearest coast (kilometers): 3.2

14. Additional information:

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Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division Southwestern

District Galveston

2. Permit start date/expire date:

Permittee: _____

Date issued: 7 Jul 83

Permit No. _____

Start Date: 2 Aug 83

Expiry Date: 27 Oct 83

3. Country of origin of wastes and port of loading:

a. United States of America

b. Brazos Island Harbor, Texas

4. Specification of dredged material and process from which derived:

a. Description: Silty sand from channel maintenance

b. Mode of dredging: Hopper Dredge "STUYVESANT"

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Slurry - Sand and silt in suspension

6. Total quantity (cubic meters): 677,698

7. Expected frequency of dumping (for reporting period):

a. 10 daily 7 days/week

b. Actual start: 2 Aug 83

c. Actual completion: 8 Sep 83

8. Chemical composition:

9. Properties of dredged material:

a. Solubility (% water) 80

b. Density (gm/cc) .2.0

c. pH N/A

d. % sand _____ % silt _____ % clay _____

10. Method of packaging:

11. Method of release: Bottom release

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site

13. Approved dumping site:

a. Geographical position (latitude and longitude): 26° 04', 97° 07'
(center coordinates)b. Depth of water (meters): 13c. Distance from nearest coast (kilometers): 3.5

14. Additional information:

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Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division South Pacific District San Francisco

2. Permit start date/expire date:

Permittee: U.S. Army Corps of Engineers

Date issued: 5 Jan 1983 Permit No. ----

Start Date: 5 Jan 1984 Expiry Date: 5 Apr 1983

3. Country of origin of wastes and port of loading:

a. United States of America, California

b. San Francisco Harbor, Mainship Channel

4. Specification of dredged material and process from which derived:

a. Description: Fine sand with trace of silt
Sand 95%
Silt 5%

b. Mode of dredging: Trailing Hopper Dredge

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Settled sand

6. Total quantity (cubic meters): 485,850

7. Expected frequency of dumping (for reporting period):

a. 10 loads per day

b. Actual start: 12 Jan 83 c. Actual completion: 25 Mar 83

8. **Chemical composition:** Not tested, meets criteria of section 227.13 (6) (1), Ocean dumping rules and regulations F.R. Vol 42, No. 7, 11 Jan 77.
9. **Properties of dredged material:**
- a. **Solubility (% water)** 57%
 - b. **Density (gm/cc)** 1.1752
 - c. **pH** Not tested
 - d. **% sand** 95 **% silt** 05 **% clay** 00
10. **Method of packaging:** Free flowing from open Hopper Dredge
11. **Method of release:** Bottom dump
12. **Procedure and site for tank washing:** Hoppers flushed at authorized disposal site
13. **Approved dumping site:**
- a. **Geographical position (latitude and longitude):** 37° 45' 06" N
122° 35' 45" W
 - b. **Depth of water (meters):** 12.2
 - c. **Distance from nearest coast (kilometers):** 5.2
14. **Additional information:** None

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division South Pacific District San Francisco

2. Permit start date/expire date:

Permittee: U.S. Army Corps of Engineers

Date issued: 29 Mar 1983 Permit No. -

Start Date: 29 Mar 1983 Expiry Date: 03 May 1983

3. Country of origin of wastes and port of loading:

- a. United States of America, California
- b. Humboldt Harbor, Bar & Entrance Channel

4. Specification of dredged material and process from which derived:

- a. Description: Fine Sand with Trace of Silt
98% Sand
02% Silt

b. Mode of dredging: Trailing Hopper Dredge

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: BITTED SAND

6. Total quantity (cubic meters): 146,000

7. Expected frequency of dumping (for reporting period):

a. 21 Loads Per Day

b. Actual start: 31 Mar 1983 c. Actual completion: 29 Apr 83

8. **Chemical composition:** Not tested, meets criteria of section 227.13(6)(1), Ocean Dumping Rules and Regulations F.R. Vol 42, No.7, 11 Jan 77

9. **Properties of dredged material:**

- a. Solubility (% water) 45
- b. Density (gm/cc) 1.938
- c. pH Not Tested
- d. % sand 98 % silt 02 % clay 00

10. **Method of packaging:** Free flowing from open Hopper Dredge

11. **Method of release:** Bottom Dump

12. **Procedure and site for tank washing:** Hopper Flushed at authorized disposal site

13. **Approved dumping site:**

- a. Geographical position (latitude and longitude): 40° 45' 44" N
124° 15' 42" W

- b. Depth of water (meters): 26.0

- c. Distance from nearest coast (kilometers): 2.6

14. **Additional information:** None

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division South Pacific District San Francisco

2. Permit start date/expire date:

Permittee: U.S. Army Corps of Engineers

Date issued: 06 July 1983 Permit No. -

Start Date: 09 July 1983 Expiry Date: 09 September 83

3. Country of origin of wastes and port of loading:

- a. United States of America, California
- b. Humboldt Harbor, Bar & Entrance Channel

4. Specification of dredged material and process from which derived:

- a. Description: Fine Sand with Trace of Silt
98% Sand
02% Silt

b. Mode of dredging: Trailing Hopper Dredge

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Settled Sand

6. Total quantity (cubic meters): 626,100

7. Expected frequency of dumping (for reporting period):

a. 21 Loads per Day

b. Actual start: 09 Jul 83 c. Actual completion: 12 Aug 83

8. **Chemical composition:** Not tested, meets criteria of section 227.13(6)(1), Ocean Dumping Rules and Regulations F.R. Vol 42, No. 7, 11 Jan 77.

9. **Properties of dredged material:**

a. Solubility (% water) 45
b. Density (gm/cc) 1.938
c. pH Not Tested
d. % sand 98 % silt 02 % clay 00

10. **Method of packaging:** Free flowing from open Hopper Dredge

11. **Method of release:** Bottom Dump

12. **Procedure and site for tank washing:** Hopper flushed at authorized disposal site

13. **Approved dumping site:**

a. Geographical position (latitude and longitude): 40° 45' 44"N
124° 15' 42"W

b. Depth of water (meters): 26.0

c. Distance from nearest coast (kilometers): 2.6

14. **Additional information:** None

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division South Pacific District San Francisco

2. Permit start date/expire date:

Permittee: U.S. Army Corps of Engineers

Date issued: 5 Apr 83 Permit No. ---

Start Date: 7 Apr 83 Expiry Date: 28 Apr 83

3. Country of origin of wastes and port of loading:

a. United States of America, California

b. Humboldt Harbor, Interior Channels

4. Specification of dredged material and process from which derived:

a. Description: Fine sand and gravel
86% sand
7% gravel
7% silt

b. Mode of dredging: Trailing Hopper Dredge

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Settled sand

6. Total quantity (cubic meters): 1,450.0

7. Expected frequency of dumping (for reporting period):

a. 14 loads

b. Actual start: 7 Apr 83 c. Actual completion: 13 Apr 83

8. **Chemical composition:** Not tested, meets criteria of section 227.13 (b) (1)
Ocean dumping rules & regulations -- F.R. Vol 24, No. 7, 11 Jan 77

9. **Properties of dredged material:**

- a. Solubility (% water) 64
b. Density (gm/cc) 1.619
c. pH Not tested
d. % sand 86 % silt 07 % Gravel 07

10. **Method of packaging:** Free flowing from open Hopper Dredge

11. **Method of release:** Bottom dump.

12. **Procedure and site for tank washing:** Hopper floushed at authorized disposal Site.

13. **Approved dumping site:**

- a. Geographical position (latitude and longitude): 40° 45' 44" N
124° 15' 42" W
b. Depth of water (meters): 26.0
c. Distance from nearest coast (kilometers): 2.6

14. **Additional information:** None

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 83

1. Issuing Authority:

Division South Pacific District San Francisco

2. Permit start date/expire date:

Permittee: U.S. Army Corps of Engineers

Date issued: 11 Aug 1983 Permit No. ---

Start Date: 15 Aug 1983 Expiry Date: 13 Dec 1983

3. Country of origin of wastes and port of loading:

a. United States of America , California

b. Crescent City Harbor, Inner Channel

4. Specification of dredged material and process from which derived:

a. Description: Silts, loose sands, gravel, shell fragments, sandstone and rock

b. Mode of dredging: Clamshell

c. Mode of transportation: Tug with dump barge

5. Form in which dredged material is presented for disposal: Settled sand, silts & rock fragments

6. Total quantity (cubic meters): 42,000 (sand, silt) & 3,800 (rock)

7. Expected frequency of dumping (for reporting period):

a. 2 loads per day

b. Actual start: 15 Aug 83 c. Actual completion: 13 Dec 1983

8. **Chemical composition:** Tested for the following metals: Hg, Cd, Cu, Zn, and Pb. Did not exceed levels in receiving waters nor did these levels exceed state water Quality Control Board criteria.

9. **Properties of dredged material:**

- a. **Solubility (% water)** Unknown
- b. **Density (gm/cc)** varies widely (silt to rock)
- c. **pH** Not tested
- d. **% sand** _____ **% silt** _____ **% clay** _____

Varies widely (silt to clay)

10. **Method of packaging:** Free flowing from open Hopper Barge
11. **Method of release:** Bottom dump
12. **Procedure and site for tank washing:** Hooper flushed at authorized disposal site.
13. **Approved dumping site:**

- a. **Geographical position (latitude and longitude):** 41° 43' 15" N
124° 12' 10" W
- b. **Depth of water (meters):** 27.0
- c. **Distance from nearest coast (kilometers):** 2.09

14. **Additional information:** None

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division North Pacific District Portland

2. Permit start date/expire date:

Permittee: N/A

Date issued: _____ Permit No. _____

Start Date: _____ Expiry Date: _____

3. Country of origin of wastes and port of loading:

a. United States of America

b. Chetco River, Oregon

4. Specification of dredged material and process from which derived:

a. Description: Sand (SP) - Entrance
Sand & Gravel (GW) - Inside Channel

b. Mode of dredging: Hopper Dredge YAQUINA

c. Mode of transportation:

5. Form in which dredged material is presented for disposal:

Sand & Gravel - Subrounded to Subangular

6. Total quantity (cubic meters): 45,658 cubic meters

7. Expected frequency of dumping (for reporting period):

a. 8 loads daily, 7 days per week

b. Actual start: 3 May 83 c. Actual completion: 15 Sep 83

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8. Chemical composition:

Nutrients - Meets chemical/biological testing exemption criteria.

Metals - Hg - .0001 mg/l; Pb - .001 mg/l; Cd - .001 mg/l; Zn - .02 mg/l

Organics - None

Other Analysed -

Metals - Hg-.001; Pb-.01 mg/l; Cd-.003 mg/l; Zn-.04 mg/l

Organics - None

Volatile Solids % - 4.2; C.O.D. - 15,400 mg/l; D.O. 6.0 mg/l

9. Properties of dredged material:

a. Solubility (% water) 36% H_2O

b. Density (gm/cc) 2.06 gm/cc

c. pH 7.6

d. % sand 90 % silt % clay % gravel 10

10. Method of packaging:

11. Method of release: Bottom release - Immediate

12. Procedure and site for tank washing:
Hoppers flushed at authorized disposal site.

13. Approved dumping site:

a. Geographical position (latitude and longitude):
42° - 02' N(Lat.); 124° - 16 ' W (Long.)

b. Depth of water (meters): 21.3 meters

c. Distance from nearest coast (kilometers): 1.6 kilometers

14. Additional information:

LONDON DUMPING CONVENTION

C-42 pg 1 of 2

Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division North PacificDistrict Portland

2. Permit start date/expire date:

Permittee: N/A

Date issued: _____

Permit No. _____

Start Date: _____

Expiry Date: _____

3. Country of origin of wastes and port of loading:

a. United States of America

b. Coos Bay, Oregon

4. Specification of dredged material and process from which derived:

a. Description: Sand (SP)

b. Mode of dredging: Contract Hopper Dredges
MANHATTAN ISLAND and WESTPORT

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal:

Sand - Subrounded to Subangular

6. Total quantity (cubic meters): 701,955 cubic meters

7. Expected frequency of dumping (for reporting period):

a. 11 loads daily, 7 days per week

b. Actual start: 18 Sep 83c. Actual completion: 14 Dec 83

C-42 pg 2 of 2

8. Chemical composition:

Nutrients - T.O.C. - 4.7 Mg/ml

Metals - Cd - 4.3 mg/ml; Zn - 97 mg/ml; Cu - 8.5 mg/ml; Fe - 70 mg/ml;
Mn - 90 mg/ml

Organics - Volatile Solids - .4%

Other Analyses - Hg - PB - 7 mg/g; Pb - 1.0 mg/g; Zn - 49 mg/g; Cu - 1.1 mg/g;
Fe - 2500 mg/g; Mn - 45 mg/g

9. Properties of dredged material:

a. Solubility (% water) 37% H₂O

b. Density (gm/cc) 1.94 gm/cc

c. pH 7.1

d. % sand 100 % silt % clay

10. Method of packaging:

11. Method of release: Bottom release - Immediate

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal sites.

13. Approved dumping site:

a. Geographical position (latitude and longitude):

This project has two authorized disposal sites. Both sites were used in CY 1983 (See # 14 below).

b. Depth of water (meters):

See below

c. Distance from nearest coast (kilometers):

See below

14. Additional information:

<u>Disposal Area</u>	<u>Lat. - Long.</u>	<u>Water Depth</u>	<u>Dist. from Coast</u>
Area E	43° - 21' N 124° - 22' W	17.4 m	2.4 Km
Area F	43° - 22' N 124° - 22' W	24.4 m	2.4 Km

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Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division North Pacific District Portland

2. Permit start date/expire date:

Permittee: N/A

Date issued: _____ Permit No. _____

Start Date: _____ Expiry Date: _____

3. Country of origin of wastes and port of loading:

a. United States of America

b. Coquille River, Oregon

4. Specification of dredged material and process from which derived:

a. Description: Sand (SP)

b. Mode of dredging: Hopper Dredge YAQUINA

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal:

Sand - Subrounded to Subangular

6. Total quantity (cubic meters): 22,957 cubic meters

7. Expected frequency of dumping (for reporting period):

a. 9 loads daily, 7 days per week

b. Actual start: 28 May 83 c. Actual completion: 16 Jun 83

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3. Chemical composition:

Nutrients - Meets chemical/biological testing criteria,

Metals - Hg, Pb - None; Zn - 0.28; Cd - .003

Organics - None

Other Analyses -

Metals - Hg - 1037 ppm; Pb - 6.1 mg/kg; Zn - 7.28 mg/kg;

Cd - 1.3 mg/kg

Other - C.O.D. gm/kg; Volatile Sol. L. % - 4.45

9. Properties of dredged material:

a. Solubility (% water) 37% H_2O

b. Density (gm/cc) 2.06 gm/cc

c. pH Unknown

d. % sand 100 % silt _____ % clay _____

10. Method of packaging:

11. Method of release: Bottom release - Immediate

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site

13. Approved dumping site:

a. Geographical position (latitude and longitude): _____

43° - 07' N (Lat.); 124° - 26' W (Long.)

b. Depth of water (meters): _____

18.3 meters

c. Distance from nearest coast (kilometers): _____

1.6 kilometers

14. Additional information:

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division North Pacific

District Portland

2. Permit start date/expire date:

Permittee: N/A

Date issued: _____

Permit No. _____

Start Date: _____

Expiry Date: _____

3. Country of origin of wastes and port of loading:

a. United States of America

b. Mouth of Columbia River, Oregon & Washington

4. Specification of dredged material and process from which derived:

a. Description: Sand (SP)

b. Mode of dredging: Hopper Dredge ESSAYONS and
Contract Hopper Dredge MANHATTAN ISLAND

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal:

Sand - Subrounded to Subangular

6. Total quantity (cubic meters): 1,476,177 cubic meters

7. Expected frequency of dumping (for reporting period):

a. 11 loads daily, 7 days per week

b. Actual start: 6 Aug 83

c. Actual completion: 30 Sep 83

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8. Chemical composition:

Nutrients - Meets chemical/biological testing exemption criteria.

Metals - Hg, Pb, Cd - None detected; Zn - 0.19 mg/l

Organics - None

Other Analyses -

Metals - Hg - 0.038 ppm; Pb - 6.900 mg/kg; Cd - 0.64 mg/kg; Zn - 9.0 mg/kg

Volatile Solids % - 0.72; C.O.C. - 1.73 gm/kg

9. Properties of dredged material:

a. Solubility (% water) 40% H₂O

b. Density (gm/cc) 1.94 gm/cc

c. pH 7.0

d. % sand 100 % silt % clay

10. Method of packaging:

11. Method of release: Bottom release - Immediate

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site

13. Approved dumping site:

a. Geographical position (latitude and longitude):

This project has five authorized disposal sites. Three were used in 1983 (See #14 below).

b. Depth of water (meters):

See below

c. Distance from nearest coast (kilometers):

See below

14. Additional information:

Disposal Area	Lat. - Long	Water Depth	Dist. from Coast
Area A	46° - 12' N 124° - 06' W	19.8 meters	4.0 kilometers
Area B	46° - 14' N 124° - 10' W	33.5 meters	6.4 kilometers
Area E	46° - 15' N 124° - 05' W	18.3 meters	0.8 kilometers

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division North Pacific District Portland

2. Permit start date/expire date:

Permittee: N/A

Date issued: _____ Permit No. _____

Start Date: _____ Expiry Date: _____

3. Country of origin of wastes and port of loading:

a. United States of America

b. Rogue River, Oregon

4. Specification of dredged material and process from which derived:

a. Description: Sand (SP)

b. Mode of dredging: Hopper Dredge YAQUINA

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal:

Sand - Subangular

6. Total quantity (cubic meters): 108,772 cubic meters

7. Expected frequency of dumping (for reporting period):

a. 12 loads daily, 7 days per week

b. Actual start: 17 May 83 c. Actual completion: 28 Jul 83

8. Chemical composition:

Nutrients - None
Metals - Hg-.0001; Pb - .001; Cd - .002; Zn - .012
Organics - None
Other Analyses - None
Oil & Grease - No visible sheen

C-45 pg 2 of 2

9. Properties of dredged material:

- a. Solubility (% water) 43% H_2O
b. Density (gm/cc) 2.01 gm/cc
c. pH 7.4
d. % sand 100 % silt _____ % clay _____

10. Method of packaging:

11. Method of release: Bottom release - Immediate

12. Procedure and site for tank washing:
Hopper flushed at authorized disposal site.

13. Approved dumping site:

- a. Geographical position (latitude and longitude): _____
42° - 24' N (Lat.); 124° - 27' W (Long.)
b. Depth of water (meters): 1.83 meters
c. Distance from nearest coast (kilometers): 3.2 kilometers

14. Additional information:

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division North Pacific District Portland

2. Permit start date/expire date:

Permittee: N/A

Date issued: _____ Permit No. _____

Start Date: _____ Expiry Date: _____

3. Country of origin of wastes and port of loading:

a. United States of America

b. Siuslaw River, Oregon

4. Specification of dredged material and process from which derived:

a. Description: Sand (SP)

b. Mode of dredging: Hopper Dredge YAQUINA

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal:
Sand - Subangular to Subrounded

6. Total quantity (cubic meters): 163,108 cubic meters

7. Expected frequency of dumping (for reporting period):

a. 13 loads daily, 7 days per week

b. Actual start: 17 Jun 83 c. Actual completion: 8 Sep 83

C-46 pg 2 of 2

8. Chemical composition:

Nutrients - TKN - 1.54 mg/l; TPO $\frac{1}{4}$ - 0.35 mg/l
 Metals - Hg - .0010 ppm; 0.001 ppm (dry)
 Organics - Volatile Solids - 10,000 mg/kg (dry)
 C.O.D. - 77.6 mg/l; Suspended Solids - 56 mg/l;
 T.O.C. - 1.6 mg/l

9. Properties of dredged material:

a. Solubility (% water) 49% H_2O
 b. Density (gm/cc) 2.01 gm/cc
 c. pH 7.0
 d. % sand 100 % silt _____ % clay _____

10. Method of packaging:

11. Method of release: Bottom release - Immediate

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site

13. Approved dumping site:

a. Geographical position (latitude and longitude): _____
 44° - 01' N (Lat.); 124° - 09' W (Long.)
 b. Depth of water (meters): 21.3 meters
 c. Distance from nearest coast (kilometers): 1.9 kilometers

14. Additional information:

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division North Pacific District Portland

2. Permit start date/expire date:

Permittee: N/A

Date issued: _____ Permit No. _____

Start Date: _____ Expiry Date: _____

3. Country of origin of wastes and port of loading:

a. United States of America

b. Umpqua River, Oregon

4. Specification of dredged material and process from which derived:

a. Description: Sand (SP)

b. Mode of dredging: Hopper Dredge YAQUINA

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal:

Sand - Subrounded to Subangular

6. Total quantity (cubic meters): 103,947 cubic meters

7. Expected frequency of dumping (for reporting period):

a. 9 loads daily, 7 days per week

b. Actual start: 3 Jun 83 c. Actual completion: 8 Sep 83

8. **Chemical composition:**
Nutrients - Ortho Phosphates - 11-62 ug/l; Phosphate Phosphorus-65-88 ug/l
Metals - Cyanide - 1-3 ug/l
Organics - Volatile Solids - 8500-41,300 mg/ug (dry)

Nutrients - Ortho Phosphates - 11-62 ug/l; Phosphate Phosphorus-65-88 ug/l
Metals - Cyanide - 1-3 ug/l
Organics - Volatile Solids - 8500-41,300 mg/ug (dry)

9. Properties of dredged material:

- a. Solubility (% water) 36% H_2O
- b. Density (gm/cc) 2.05 gm/cc
- c. pH 7.1
- d. % sand 100 % silt % clay

10. Method of packaging:

11. Method of release: Bottom release - Immediate

12. Procedure and site for tank washing:
Hopper flushed at authorized disposal site.

13. Approved dumping site:

- a. Geographical position (latitude and longitude): _____
43° - 40' N (Lat.); 124° - 14' W (Long.)
- b. Depth of water (meters): _____ 27.4 meters
- c. Distance from nearest coast (kilometers): _____ 0.8 kilometers

14. Additional information:

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division North Pacific District Portland

2. Permit start date/expire date:

Permittee: N/A

Date issued: _____ Permit No. _____

Start Date: _____ Expiry Date: _____

3. Country of origin of wastes and port of loading:

- a. United States of America
- b. Yaquina Bay & Harbor, Oregon

4. Specification of dredged material and process from which derived:

- a. Description: Sand (SP)
- b. Mode of dredging: Hopper Dredge YAQUINA and
Contract Hopper Dredge WESTPORT
- c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal:

Sand - Subrounded to Subangular

6. Total quantity (cubic meters): 346,608 cubic meters

7. Expected frequency of dumping (for reporting period):

- a. 13 loads daily, 7 days per week

b. Actual start: 19 Aug 83 c. Actual completion: 28 Aug 83

8. Chemical composition:

Nutrients - TKN - 0.42 mg/l; TPO $\frac{+}{4}$ - 0.38 mg/l; Orthophosphate - .064 mg/l;
T.O.C. - 3.7 mg/l
Metals - Hg - 0.0 mg/l; Mn - 120 mg/l; Cu - 1 mg/l; Cd - 0.88 mg/l;
Pb - 0.0 mg/l; Zn - 1.8 mg/l
Organics - Phenols - 9 mg/l

9. Properties of dredged material:

- a. Solubility (% water) 26% H_2O
b. Density (gm/cc) 2.04 gm/cc
c. pH 7.9
d. % sand 100 % silt _____ % clay _____

10. Method of packaging:

11. Method of release: Bottom release - Immediate

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.

13. Approved dumping site:

a. Geographical position (latitude and longitude): _____

44° - 36' N (Lat.); 124° - 05' W (Long.)

b. Depth of water (meters): 18.3 metersc. Distance from nearest coast (kilometers): 1.6 kilometers

14. Additional information:

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 83

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1. Issuing Authority:

Division North Pacific

District Alaska

2. Permit start date/expire date:

Permittee: _____

Date issued: _____

Permit No. _____

Start Date: _____

Expiry Date: _____

3. Country of origin of wastes and port of loading:

a. United States of America

b. Nome, Alaska

4. Specification of dredged material and process from which derived:

a. Description: Gravelly, silty, sand

b. Mode of dredging: Clam shell

c. Mode of transportation: Barge

5. Form in which dredged material is presented for disposal: Solid

6. Total quantity (cubic meters): 10,940

7. Expected frequency of dumping (for reporting period):

a. 3 times/day

b. Actual start: 1 June 83

c. Actual completion: 30 September 83

8. Chemical composition: N/A

9. Properties of dredged material:

a. Solubility (% water) 10%

b. Density (gm/cc) 1.6 gm/cc

c. pH N/A

d. % sand 75 % silt 15 % clay 0

10. Method of packaging: Barge loaded

11. Method of release: Washed off of barge

12. Procedure and site for tank washing: N/A

13. Approved dumping site:

a. Geographical position (latitude and longitude): 64°29'54"N
165°24'41"W

b. Depth of water (meters): 3-5m

c. Distance from nearest coast (kilometers): 0.6km

14. Additional information:

This is an annual Corps of Engineers Maintenance Dredging Project

C-50 - 1d

Periodic Maintenance Dredging
Nawiliwili Harbor, Kauai, Hawaii

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1983

1. Issuing Authority:

Division Pacific Ocean District Honolulu

2. Permit start date/expire date:

Permittee: N/A

Date issued: _____ Permit No. _____

Start Date: _____ Expiry Date: _____

3. Country of origin of wastes and port of loading:

a. United States of America

b. Nawiliwili Harbor, Kauai

4. Specification of dredged material and process from which derived:

a. Description: Poorly graded gravelly sand.

b. Mode of dredging: Hopper dredge "YAQUINA"

c. Mode of transportation: Hopper dredge "YAQUINA"

5. Form in which dredged material is presented for disposal: Slurry,
non-cohesive character

6. Total quantity (cubic meters): $240,000\text{m}^3$

7. Expected frequency of dumping (for reporting period):

a. 14 times daily, 6 days per week

b. Actual start: 16 Feb 83 c. Actual completion: 24 Mar 83

8. Chemical composition: N/A

9. Properties of dredged material:

a. Solubility (% water)

b. Density (gm/cc) 1.71 gm/cc

c. pH

d. % sand 95 % silt +clay 5 % clay

10. Method of packaging: N/A

11. Method of release: Bottom release

12. Procedure and site for tank washing: Hopper flushed at authorized disposal site

13. Approved dumping site:

a. Geographical position (latitude and longitude): 21° 55' N (Lat)
159° 17' W (Long)

b. Depth of water (meters): 1000 m

c. Distance from nearest coast (kilometers): 6.5 m

14. Additional information:

END

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